



INSTITUTE FOR DEFENSE ANALYSES

## **Collection of Operating and Support Data from Weapon System Support Contracts**

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## **PREFACE**

The Institute for Defense Analyses (IDA) prepared this paper under a task titled “Collection of O&S Data from Weapon System Support Contracts.” The effort was jointly sponsored by the Office of the Director, Program Analysis and Evaluation, and the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics. The overarching task objective was to develop an approach for the systematic collection of weapon system operating and support (O&S) data, reflecting actual cost and performance experience for systems sustained through contractor logistics support or other similar arrangement. This paper provides the rationale for, and the description of, the approach IDA developed in support of this task.

Patricia F. Bronson, John J. Cloos, and Jay Mandelbaum of IDA were the technical reviewers for this paper.



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## **EXECUTIVE SUMMARY**

This paper documents the results of an IDA research task concerning the potential collection of operating and support (O&S) cost and performance data for weapon systems placed under a Performance Based Logistics (PBL) contract or other form of Contractor Logistics Support (CLS). Currently, there is limited capability to collect such data when systems are sustained through contractor support. The purpose of the task was to assess the utility and feasibility of collecting cost and performance data without imposing undue burden on contractors and program offices.

During the initial period of the research, the IDA study team reviewed current Department of Defense (DoD) policies for weapon system support, and identified key issues that would need to be addressed by any initiative to collect cost and performance data from sustainment contracts. In particular, current policy in the Defense Acquisition Guidebook emphasizes the importance of monitoring contractor cost and performance through capture and tracking of accurate cost and performance data. The Guidebook calls for program offices to establish tailored data reporting to support contract management and facilitate future cost estimating and price analysis. However, a Government Accountability Office review of PBL contracts conducted in 2005 found that, in general, program offices had failed to obtain reliable cost and performance data needed to assess whether PBL strategies were in fact resulting in reduced costs and increased performance. Developing new procedures for obtaining such data became the primary objective of our task.

The IDA study team also wanted to learn about actual field-level experiences and perspectives in the implementation and management of contractor support arrangements. We identified a set of eleven current weapon systems with contractor support that were used as case studies for this task. For each case, we assembled basic information about the sustainment acquisition strategy, the scope of the sustainment effort, contract type, annual funding, performance metrics, and other relevant information. With assistance from our sponsor, we made arrangements for a series of field visits to the program offices in order to validate our assembled information and to receive feedback about possible data reporting from those personnel with actual experience in PBL or other CLS information.

Using the case studies as a foundation, we developed a conceptual framework for what data are needed, when they are needed, and how they would be used. In essence, actual cost and performance data are needed by program managers to monitor and assess contract execution. In addition, the data are needed to (1) conduct and update an economic analysis (known as a product support strategy analysis) of PBL alternatives, (2) establish and track cost and performance baselines, (3) support engineering trade-off analyses over the system life cycle, and (4) assist contract negotiations. Finally, the data are needed by the Cost Analysis Improvement Group and the military service cost centers because they form the basis for cost estimates for current and future systems. In establishing data requirements, our approach was to strike a balance between establishing a reasonable degree of rigor and standardization throughout DoD, while permitting flexible reporting arrangements that could be tailored to the unique circumstances of individual programs and associated contracts.

Given the conceptual framework of data requirements, we then developed a comprehensive strategy for systematic and managed data reporting and collection. We prepared the overarching reporting process and associated timelines that can be incorporated into DoD directives, instructions, and manuals to institutionalize the collection of weapon system sustainment cost and performance data. We also developed specific data report formats and preparation instructions that could be placed on sustainment contracts. These products are provided in Appendixes B through F of this paper.

Our recommended elements of the proposed reporting process are sufficient for a preliminary trial phase consisting of a limited number of pilot programs that will be initiated and monitored by the task sponsors. Validation and further refinement of the reporting process can take place after evaluation of the results of the pilot programs.

A key assumption on the part of our study was that the responsibility for management of any sustainment cost and performance data reporting system would be assigned to the Defense Cost and Resource Center (DCARC), since it already has the institutional processes and infrastructure for the systematic collection of cost data reports from major weapon system development and procurement contracts. The DCARC is the organization responsible for administering the Cost and Software Data Reporting (CSDR) system, which provides for the collection of cost and software productivity data reports for the development and procurement contracts associated with major defense acquisition programs.

We made estimates of the potential workload increase for the DCARC, given the mission to manage the collection of sustainment cost and performance data reports. Depending on assumptions about the degree of necessary oversight and control, we estimate that the steady-state workload associated with document review and processing could increase between 10 and 30 percent. In addition, resources would be needed for training government and contract personnel about the new sustainment reporting procedures, and for software modifications to the DCARC Web site and its various applications. In total, we estimate that DCARC staffing would need to be increased between 1.0 and 2.5 full-time equivalents (primarily in contractor support).



# **I. INTRODUCTION**

## **A. MOTIVATION**

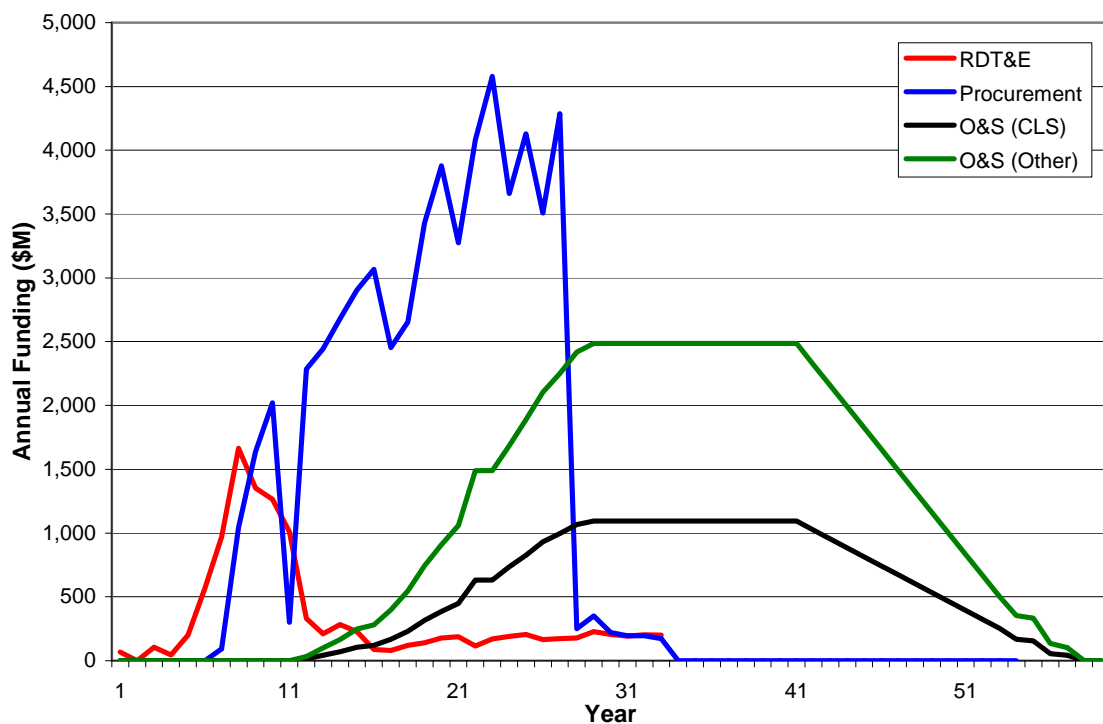
The Department of Defense (DoD) has collected operating and support (O&S) cost data for major weapon systems for more than 30 years. Each military service has its own O&S data collection system, developed under the auspices of the Visibility and Management of Operating and Support Costs (VAMOSC) program that was initiated in 1974. To ensure that credible data are available to support weapon system O&S cost estimates, the Office of the Secretary of Defense (OSD) Cost Analysis Improvement Group (CAIG) continues to provide policy guidance on the VAMOSC program, and monitors its implementation by each of the military services. Each service VAMOSC data system tracks actual O&S cost experience for major weapon systems. The data can be displayed by time frame, at various levels of detail, and by functional elements of cost (such as depot maintenance, fuel, consumable items, and so forth). Each VAMOSC system provides not only cost data, but related non-cost data (such as system quantities, operating tempo, or maintenance man-hours) as well. VAMOSC data can be used to analyze trends in O&S cost experience for each major system, as well as to identify and assess major cost drivers. In addition, VAMOSC data are important as a data source for cost estimates of future systems. Often, cost estimates for future systems are made by analogy to appropriate predecessor systems.

A significant limitation of the current VAMOSC data collection systems is the lack of visibility into actual O&S cost experience when a system is sustained through a contractor logistics support (CLS) or similar arrangement. Historically, most systems had been sustained through organic (government) support, or had limited and specialized contractor support that provided only a discrete functional element such as depot maintenance. The service VAMOSC systems were designed to accommodate either type of arrangement. However, CLS arrangements provide multiple functions and services as part of a single contract, and such arrangements may not allow for a breakout of the actual costs by functional element suitable for VAMOSC systems and O&S cost analysts.

This limitation has become more pronounced over time, as increasing numbers of systems are being sustained through some form of CLS. Until recently, CLS had been

obtained for a limited number of special cases. One special case would be when the weapon system was derived from a commercially available system (such as the KC-10 tanker/airlift aircraft, which was derived from the commercial DC-10 aircraft), and a commercial source for sustainment was readily available. Another special case would be when the system was a high-cost program procured in limited quantities (such as the U-2 reconnaissance aircraft), and the investment cost in establishing an organic sustainment capability was not economically justified. However, since the mid-1990s, DoD has significantly expanded the use of CLS to a wide range of military programs. Recent examples include: the F-22 Raptor fighter, C-17 Globemaster III airlift aircraft, the T-45 training system, the F/A-18E/F Hornet fighter/attack aircraft, the AH-64 Apache attack helicopter, and the Stryker family of armored combat vehicles.

The CLS portion of O&S costs can be a significant element of a system's overall life-cycle cost. An example of these estimated costs for the C-17 airlift aircraft is displayed in Figure 1. In this example, the estimated annual CLS costs are over \$1 billion (in FY 2008 dollars), and the CLS costs are estimated to total almost \$30 billion over the aircraft's life cycle. The total CLS costs are roughly one half as large as the procurement costs.



**Figure 1. Estimated C-17 Life-Cycle Costs**

Not only has the use of CLS increased over time, but the nature of the support has changed as well. Today, DoD policy emphasizes Performance Based Logistics (PBL) as the preferred strategy for system sustainment. The essence of PBL is buying performance outcomes (such as system operational availability, O&S cost per unit of system usage, or logistics response time), rather than the purchase of individual parts, repair actions, or training services. Although a PBL strategy need not always be met through a contract with a commercial entity, it often is, at least to some degree. For those instances where the PBL source is a contractor, the support contracted for typically has been expanded so that the contractor not only provides specialized maintenance or logistics functions, but also provides broader types of support (such as supply chain management or configuration management) and may even serve as the overall product support integrator. The implications of the PBL policy are further described in Chapter II of this paper.

## **B. IDA TASKING**

The objective of this task was to define a program for the systematic collection of O&S costs and performance data for systems sustained through CLS arrangements. The statement of work consists of the following:

- Identify use cases for contractor cost and performance data that describe the instances where the data should be collected and describe how it will be used.
- Based on the use cases, define preliminary cost and performance data reporting requirements, to include items to be reported, formats, and frequency of reporting. Vet the preliminary data reporting requirements with the military departments and industry to assess the feasibility of collecting the information without imposing undue burdens. Make appropriate recommendations that can be incorporated into DoD directives and instructions to formalize collection of CLS cost and performance data.
- Assess the capability of the OSD CAIG's Defense Cost and Resource Center (DCARC)<sup>1</sup> to collect and archive the cost and performance data. Make appropriate recommendations to ensure that DCARC systems and staffing can support this new mission.

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<sup>1</sup> The DCARC is the OSD Program Analysis and Evaluation organization responsible for administering the Cost and Software Data Reporting (CSDR) system, which currently collects cost and software productivity data reports for development and procurement contracts associated with major defense acquisition programs. The DCARC manages the Defense Automated Cost Information Management System (DACIMS) that provides the DoD cost community with instant access to current and historical cost and software resource data needed to prepare cost estimates for weapon system development and production. The DCARC also provides comprehensive on-site training to government and industry data providers.

## **C. ORGANIZATION OF THE REPORT**

The next chapter (Chapter II) provides relevant background information concerning DoD policies for weapon system support, primarily focused on the ramifications of PBL and related issues. It also describes the current process and procedures for cost reporting on acquisition contracts. Chapter III provides the results of our use case analysis, which describes what types of cost and performance data are needed and how they would be used. Chapter IV provides an overview of our recommended strategy for cost and performance reporting for major weapon system sustainment contracts. Chapter V provides our assessment of the potential DCARC workload if our recommended strategy were implemented. Chapter VI provides some important concluding remarks concerning the basic objectives and rationale for our recommended approach.

Appendix A contains a summary of eleven weapon system sustainment programs that were used as case studies for this task. The remaining appendixes provide the various elements of our strategy for cost and performance data reporting from major sustainment contracts. These elements consist of our recommended changes to DoD manuals and handbooks to formalize the strategy, as well as the specific data report formats and associated instructions to program offices and contractors. Appendix B contains our proposed instructions suitable for inclusion in DoD 5000.04-M-1, “Cost and Software Data Reporting Manual.” Appendix C contains our proposed program Work Breakdown Structure for sustainment, with associated terms and definitions, suitable for inclusion in DoD Military Handbook MIL-HDBK-881A, “Work Breakdown Structure for Defense Materiel Items.” Appendix D provides our proposed Data Item Descriptions and report formats for the various recommended sustainment cost and performance data reports. Appendix E provides sample data report formats using illustrative data for a hypothetical weapon system sustainment program.



## **II. BACKGROUND**

This chapter provides relevant material that we found during the early phase of this task, during which we collected basic background information concerning Performance Based Logistics (PBL) and other forms of contractor support arrangements. We reviewed current DoD policies for weapon system product support, and identified issues that would need to be addressed by any initiative to collect cost and performance data from sustainment contracts. In addition, we reviewed the current processes and procedures for cost reporting from acquisition (development and procurement) contracts, to see how much of that, if any, could be adapted to sustainment contracts. Finally, we reviewed eleven major programs with some form of contractor support. These programs were used as case studies that provided a foundation for the remainder of the task.

### **A. PERFORMANCE BASED LOGISTICS**

#### **1. Overview**

Current DoD policy states that PBL is the preferred approach for product support implementation.<sup>2</sup> The basic tenets of PBL are described in the Defense Acquisition Guidebook,<sup>3</sup> Chapter 5 (Life-Cycle Logistics).

The Guidebook chapter begins with the concept of Total Life-Cycle Systems Management (TLSCM), in which a single Program Manager (PM) is responsible for the management of all activities associated with the development, production, fielding, sustainment, and disposal of a weapon system across its life cycle. This approach is

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<sup>2</sup> See DoD Directive 5000.1, “The Defense Acquisition System,” Enclosure 1, paragraph E1.17. The phrase “product support” refers to the package of logistics functions (such as maintenance, supply, and transportation) necessary to maintain the readiness, sustainment, and operational capability of the system.

<sup>3</sup> The Defense Acquisition Guidebook is a companion to the formal acquisition policy regulations (DoD Directive 5000.1 and DoD Instruction 5000.2). Although the Guidebook is not a mandatory document, it provides an OSD perspective on staff expectations, best business practices, and lessons learned in meeting the requirements of the regulations. The Guidebook is available on the Internet at <http://akss.dau.mil/DAG>.

intended to establish a single point of accountability for establishing and accomplishing program logistics objectives. Under this TLSCM framework, the PM is empowered to develop, refine, and execute the system product support strategy, which is one element of the overall program acquisition strategy.<sup>4</sup> The product support strategy should provide for life-cycle sustainment and continuous product improvement, striving for balance among affordability, improved reliability and maintainability, reduced logistics footprint, and readiness.

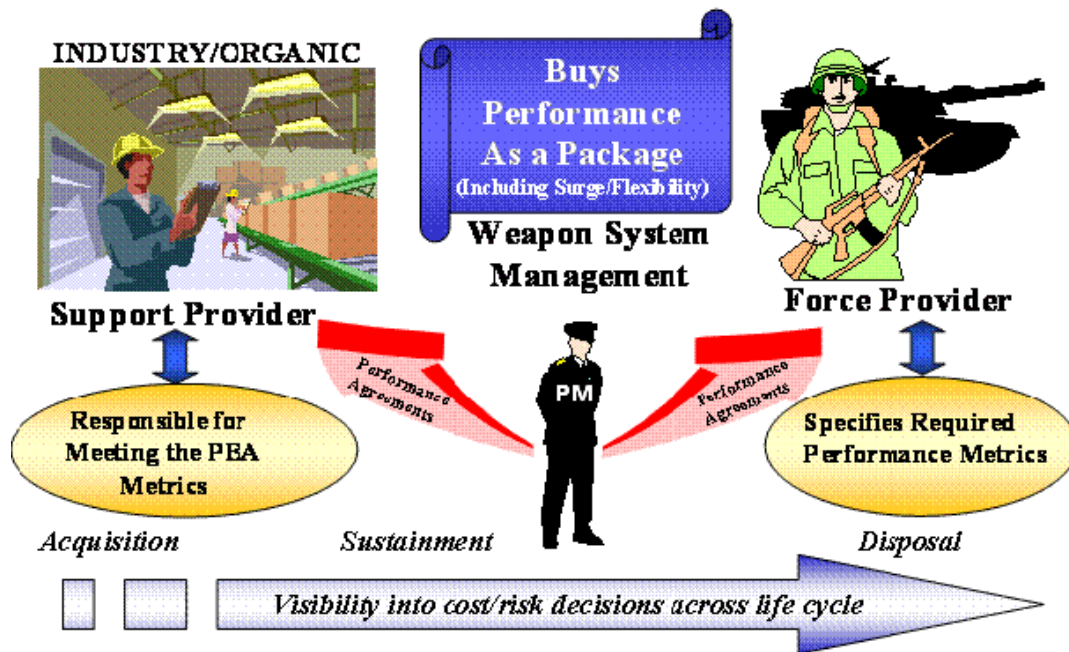
As stated earlier, the desired product support strategy is implemented using PBL. PBL is a performance-based strategy, which focuses on buying a predetermined level of availability and other levels of performance, rather than buying levels of spares, repairs, and other logistics transactions. PBL achieves the specified performance objectives through long-term support arrangements with clear lines of authority and responsibility. The PM is expected to enter into a formal pact (known as a Performance-Based Agreement) among the program office, the force providers (i.e., users), the support provider(s), and possibly other major stakeholders. This agreement formally documents the mutual expectations regarding performance and support, commensurate resources, and stakeholder responsibilities (for peacetime, contingency operations, and wartime missions). These relationships are portrayed in Figure 2.

For complex systems with extensive and complicated product support arrangements, it is common for the PM to employ a Product Support Integrator (PSI) to orchestrate all of the activities of the various support providers, public and private, defined within the scope of the Performance Based Agreement. The PSI may be provided considerable flexibility and latitude in determining how the necessary support is provided, as long as the specified performance outcomes are achieved. The PSI may be (1) the system's original equipment manufacturer or prime contractor, (2) a third-party logistics integrator and manager from the private sector, or (3) an organic command or organization from a military department or defense agency. Note that for the first two cases, the PM would employ the PSI through a performance-based contract, and the PSI, in turn, would employ the subordinate support providers through appropriate subcontracts.

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<sup>4</sup> In actual practice, the PM's responsibilities for management of the product support function often are delegated to a senior official within the program office (with a title such as "deputy program manager for logistics").

# PBL: Performance-Based Agreements



Source: Defense Acquisition Guidebook (<http://akss.dau.mil/DAG>)

Figure 2. PBL Stakeholder Relationships

## 2. Product Support Strategy Analysis

The PM is expected to develop and refine the system product support strategy through an expanded cost-benefit process known as “product support strategy analysis.”<sup>5</sup> The purpose of the analysis is to determine the best strategy alternative, among a robust range of alternatives, assessing life-cycle cost as well as other quantitative and non-quantitative factors. The analysis provides support to the following:

- Determination of the best sources of support, based on cost and performance considerations, including
  - The mix of organic organizations, private sector providers, or partnerships between organic and private sector providers
  - Role of a PSI, if any

<sup>5</sup> Earlier versions of the Defense Acquisition Guidebook used the term “Business Case Analysis,” which remains in use throughout the acquisition logistics community.

- Level of application for the PBL strategy, such as at the system level, subsystem level, or major assembly level
- Formation of an analytic basis for budgetary requirements
- Establishment of a definitive cost and performance benchmark to be used for contract negotiation and proposal evaluation
- Creation of a formal baseline for cost and performance that can be used to track PBL effectiveness over time

Ideally, the product support strategy analysis will be used throughout the system life cycle. A preliminary version of the analysis would be conducted prior to Milestone B (initiation of system development and demonstration). In the absence of complete data, the preliminary analysis would establish only a general idea of the support strategy, and most likely would not lead to a firm decision on sources of support. As the program proceeds beyond Milestone B, the PM would compile and analyze more refined data, and conduct a more definitive analysis as the program approaches Milestone C (approval of low-rate initial production). The PM would continue to refine the analysis and update it at appropriate decision points (such as contract renewal) to validate the product support strategy decisions.

### **3. PBL Implementation and Assessment**

For those programs for which contractors provide significant support to a PBL-based strategy, the Guidebook provides key discussion concerning the PM's role in monitoring and assessing contractor cost and performance:<sup>6</sup>

*The preferred Performance Based Logistics Product Support contracting approach is the use of long-term contracts with incentives tied to performance.... Award term contracts should be used where possible to incentivize optimal industry support. Incentives should be tied to metrics tailored by the Military Departments to reflect their specific definitions and reporting processes. Award and incentive contracts should include tailored cost reporting to enable appropriate contract management and to facilitate future cost estimating and price analysis. Performance Based Logistics Product Support contracts must include a definition of metrics and should be constructed to provide industry with a firm period of performance.... It is important that the Program Manager implement processes and techniques to enable accurate tracking and capture of cost and performance data. [Italics added.]*

Although the Guidebook provides emphasis on the importance of monitoring contractor cost and performance, it currently provides no information or suggested

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<sup>6</sup> "Defense Acquisition Guidebook," December 20, 2004, section 5.3.1.12 (Implement and Assess).

approach as to how that should be done. Addressing this gap became the major objective of our task.

#### **4. Government Accountability Office Study on PBL**

As part of our research on DoD policy for weapon system product support and PBL, we also reviewed Government Accountability Office (GAO) studies concerning how well DoD was implementing product support strategies for its major weapon systems. The most striking report was requested by the Subcommittee on Readiness and Management Support, Committee on Armed Services, U.S. Senate.<sup>7</sup> For this study, GAO reviewed the implementation of performance-based logistics to determine whether DoD could demonstrate cost savings and improved responsiveness from these arrangements. In conducting its review, GAO analyzed the implementation of PBL arrangements for 15 weapon system programs.

The GAO findings are summarized in the report as follows:

DoD program offices could not demonstrate that they have achieved cost savings or performance improvements through the use of performance-based logistics arrangements. Although DoD guidance on implementing these arrangements states program offices should update their business case analysis based on actual cost and performance data, only 1 of the 15 program offices included in GAO's review had performed such an update consistent with DoD guidance... *In general, program offices had not updated their business case analysis after entering into a performance-based logistics contract because they assumed that the costs for weapon system maintenance incurred under a fixed-price performance-based logistics contract would always be lower than costs under a more traditional contracting approach and because they lacked reliable cost and performance data needed to validate assumptions used....* Until program offices follow DoD's guidance and update their business case analysis based on reliable cost and performance data, DoD cannot evaluate the extent to which performance-based logistics arrangements are achieving expected benefits and being effectively implemented within DoD. [Italics added.]

The GAO recommended that DoD, to demonstrate whether PBL contracts are resulting in reduced costs and increased performance, develop procedures to track whether program offices validate their business case decisions and verify the reliability of contractor cost and performance data. In its reply to the report, DoD concurred with the GAO recommendations.

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<sup>7</sup> "Defense Management: DoD Needs to Demonstrate That Performance-Based Logistics Contracts Are Achieving Expected Benefits," GAO-05-966, September 2005.

## **B. COST REPORTING ON ACQUISITION CONTRACTS**

This section describes current practices for cost reporting on acquisition (development and procurement) contracts associated with major defense acquisition programs. These practices provide an important reference point for the development of new procedures for cost reporting on sustainment contracts. The first subsection describes how the Work Breakdown Structure (WBS) can be used to define a program in terms of a hierarchy of product-oriented elements. The WBS is used to provide a common framework for program and technical planning, cost and schedule status reporting, and cost estimating. In addition, the second and third subsections describe two distinct forms of cost reporting. The first reporting system is the Contractor Cost and Data Reporting (CCDR) system, which is used to obtain actual cost experience for use by the broad cost analyst community. CCDR data can be used to estimate costs for a mature system (perhaps approaching a full-rate production decision) based on earlier actual cost experience, and also can be used to prepare parametric estimates for future systems based on analogies to appropriate predecessor systems. The second reporting system is the Earned Value Management System (EVMS). EVMS data are used by the program office to monitor cost and schedule performance associated with the execution of ongoing contracts.

### **1. Work Breakdown Structure**

Guidance on the WBS and its use is provided in DoD Military Handbook MIL-HDBK-881A, “Work Breakdown Structures for Defense Materiel Items.”<sup>8</sup> The Handbook provides a fair degree of uniformity in concepts, terms, and definitions for describing a defense system, while allowing considerable flexibility to each program manager to tailor this guidance to the circumstances unique to each program. Before the award of the system development and demonstration contract, the PM is expected to prepare a top-level version of the WBS known as the program WBS. The program WBS describes all efforts associated with the program, including “other government” elements such as Government Furnished Equipment (GFE). The Handbook provides sample

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<sup>8</sup> The Handbook is available online at [dcarc.pae.osd.mil/policy/881handbook/881A.pdf](http://dcarc.pae.osd.mil/policy/881handbook/881A.pdf).

program WBS formats for eight commodity types.<sup>9</sup> A sample program WBS for an aircraft system is shown in Table 1.

**Table 1. Sample Program WBS for an Aircraft System**

Level 1	Level 2	Level 3
Aircraft System	Air Vehicle	Airframe Propulsion Communications/Identification Navigation/Guidance Fire Control Data Display and Controls Electronic Warfare Flight Control Armament Auxiliary Equipment Other subsystems as needed
	Systems Engineering/ Program Management System Test and Evaluation Training Data Peculiar Support Equipment Common Support Equipment Operational/Site Activation Initial Spares and Repair Parts	

Normally, the program WBS is provided to the contractor in the draft Request for Proposal (RFP). Early after contract award, the contractor extends the program WBS into a contract WBS, which will reflect the scope of the contractor effort in accordance with the statement of work and system specifications. The contract WBS may be considerably more detailed than the program WBS for selected high-cost or high-risk elements. The contract WBS provides a framework for the contractor's management control and accounting systems. Data Item Description DI-MGMT-81334C, "Contract Work

<sup>9</sup> The eight commodity types are: aircraft, electronic/automated software system, missile, ordnance, sea system, space system, surface vehicle, and unmanned aerial vehicle. In addition, a WBS for a system of systems has been added recently.

Breakdown Structure,” is used to provide specific instruction to the contractor concerning the format of the contract WBS.<sup>10</sup>

The Handbook describes how the WBS is developed and refined through the various phases of the acquisition process (conceptual studies and technology development, system development and demonstration, and production and deployment). It does not describe how a WBS would be used during the operations and support phase for major sustainment programs and contracts.

## **2. Contractor Cost Data Reporting**

For major defense acquisition programs, the CCDR system is used to collect historical program cost data from contractors and distribute that data to users that prepare cost estimates for ongoing and future major defense acquisition programs. Guidance on CCDR processes and procedures is provided in DoD 5000.04-M-1, “Cost and Software Data Reporting Manual.”<sup>11</sup> CCDR is required for all major acquisition contracts and subcontracts, regardless of contract type (i.e., cost plus, fixed price incentive, or firm fixed price), that are valued at more than \$50 million (then-year dollars). CCDR is not required for the procurement of commercial systems, or for non-commercial systems bought under competitively awarded, firm-fixed-price contracts, as long as competitive conditions continue to exist.<sup>12</sup> Cost data are normally reported at Level 3 of the contract WBS, but may be imposed at Level 4 and below on a selective basis for high-cost or high-risk elements.

The frequency of cost reporting depends on the circumstances. Initial reports are normally due within 180 days of contract award. For development contracts, contractors submit subsequent cost reports after major events, such as the preliminary design review or the critical design review, and at contract completion. For procurement contracts, contractors submit cost reports upon delivery of each annual lot.

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<sup>10</sup> A Data Item Description (DID) is a Government document used to define the format, content, and constraints for an item of contract deliverable data. A DID is incorporated into the contract for all major data deliverables. The list of all data requirements for a contract is called the Contract Data Requirements List (CDRL).

<sup>11</sup> The Cost and Software Data Reporting system consists of two distinct elements: CCDR, which is discussed in this section, and Software Resources Data Reporting (SRDR), which is concerned with software development sizing and productivity.

<sup>12</sup> See DoD Instruction 5000.2, “Operation of the Defense Acquisition System,” Enclosure 3, Table E3.T3, Contract Reporting Requirements.



The main elements of the CCDR system are the following plans and reports:

- Cost and Software Data Reporting (CSDR) Plan (DD Form 2794). CSDR plans specify the WBS elements, the specific cost reporting requirements by program or contract, reporting frequency, and other supporting material. There are two types of reporting plans—program plans prepared by the program office, and contract plans submitted by the prime contractor, associate contractors, and subcontractors. A draft contract plan is provided to the contractor as part of the RFP. The contractor then has the opportunity to propose changes to that contract plan before it becomes final.
- Cost Data Summary Report (DD Form 1921). This report is used to collect cost data for all elements of the approved contract WBS. Each WBS element is broken down into nonrecurring and recurring costs.
- Functional Cost-Hour Report (DD Form 1921-1). This report is used to collect more detailed cost data for selected WBS elements. The data are broken down into categories of labor, material, overhead, and other indirect costs. In addition, the data are further broken down into functional categories (engineering, tooling, manufacturing, and quality control).
- Progress Curve Report (DD Form 1921-2). This report focuses on the lot or unit data for selected WBS elements. The report only captures recurring costs that are unit-related.

Detailed preparation instructions for these plans and reports are provided in the CSDR Manual and the appropriate DIDs.

### **3. Earned Value Management System**

Earned Value Management (EVM) is a management control technique that integrates the technical requirements of a contract (defined by the statement of work and system specifications) to an integrated cost and schedule baseline. Early after contract award, the contractor prepares a time-phased budget that corresponds to discrete elements of defined work. As actual work is performed and measured relative to the baseline, the corresponding budget value is “earned.” From this “earned value” metric, cost and schedule variances can be determined and analyzed for management attention. For DoD, guidance on EVM is provided in the “DoD Earned Value Implementation Guide” that has been prepared by the Defense Contract Management Agency (DCMA). The DCMA Guide does not prescribe a specific management system for EVM, but rather relies on an

industry standard<sup>13</sup> that provides the desired outcomes of a contractor Earned Value Management System (EVMS). Each contractor is free to develop their own EVMS, based on their own internal management control and accounting systems, as long as it meets the desired outcomes in the standard. One important feature in this standard is that the contract WBS is the basic structure for EVMS data collection and reporting.

Currently in DoD, EVM is required for all cost-plus and fixed-price-incentive contracts greater than \$20 million (then-year dollars).<sup>14</sup> For such contracts greater than \$50 million, the cognizant contracting officer must formally validate the contractor EVMS to ensure compliance with the industry standard. The DoD EVM requirement is universal, and is not restricted to development and procurement contracts associated with acquisition programs. In particular, this requirement is applicable to major (i.e., > \$20 million) sustainment contracts for weapon systems unless they are firm fixed price.

There are two important reports that are used to provide EVM data to the program office or other responsible government officials. The first EVMS report is the Contract Performance Report (CPR), formerly known as the Cost Performance Report. The CPR displays cost and schedule performance data based on measures of work progress (i.e., earned value), and may be used to assess cost at contract completion. Data Item Description DI-MGMT-81466A, "Contract Performance Report," is used to provide specific instructions to the contractor concerning CPR format and content. The second EVMS report is the Integrated Master Schedule (IMS). The IMS displays schedule performance based on accomplishment of major program events relative to the baseline schedule. Data Item Description DI-MGMT-81650 is used to provide specific instructions to the contractor concerning IMS format and content. For those contracts subject to both CCDR and EVMS, the various reports are required to use a common contract WBS.

OSD recently began to collect EVMS reports (CPRs and IMSs) for acquisition contracts associated with major defense acquisition programs. These reports are sent to the DCARC in electronic form on a monthly basis, and are be stored centrally at a site known as "the Central Repository." EVMS reports for contracts associated with major automated information systems will be added to the Central Repository at a later date.

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<sup>13</sup> American National Standards Institute/Electronic Industries Alliance standard ANSA/EIA-748, Earned Value Management Systems.

<sup>14</sup> See DoD Instruction 5000.2, "Operations of the Defense Acquisition System," Enclosure 3, Table E3.T4., EVM Implementation Policy.

## C. WEAPON SYSTEM CASE STUDIES

In addition to reviewing the DoD headquarters-level policies in the Defense Acquisition Guidebook concerning weapon system product support, we also wanted to learn about actual field-level experiences and perspectives in implementing contractor support arrangements. We identified a sample of eleven programs that included a variety of system types from each of the military departments. The eleven case studies are identified in Table 2.

**Table 2. Weapon System CLS/PBL Case Studies**

Military Service	Program
Air Force	C-17 Globemaster III Strategic Airlift Aircraft
	C-130J Hercules Tactical Transport Aircraft
	Joint Surveillance and Target Attack Radar System (JSTARS)
	RQ-1 Predator Unmanned Aerial Vehicle (UAV)
Navy	F/A-18E/F Super Hornet Fighter/Attack Aircraft
	LPD-17 Amphibious Transport Dock
	T-45 Training System
	V-22 Osprey Engine
Army	Stryker Armored Combat Vehicle
	RQ-7 Shadow UAV
	RQ-5 Hunter UAV

For each of these weapon systems, we assembled basic information about (1) the relationships among the sustainment prime contractor, major subcontracts, and other associate contractors; (2) the scope of the contract sustainment effort; (3) the contract type (cost plus or fixed price); (4) peak annual funding; (5) any PBL metrics tracked as part of the contract; and (6) other relevant information. In conjunction with our sponsor, we made arrangements for visits to each system program office, in order to validate our assembled information as well as receive any other feedback from the appropriate program office personnel with actual experience in PBL or other CLS implementation.

Basic information across the case studies is summarized as follows:

- *Contractor relationships.* For eight of the eleven programs, the bulk of the PBL or other CLS effort is oriented toward the platform as a whole, with the prime contractor in the role of product support integrator. In the three other programs, the sustainment effort consists of multiple contracts, each oriented toward individual subsystems.

- *Scope of effort.* For all eleven programs, the scope of effort is broad and consists of multiple logistics and maintenance functions. As one typical example, the AAI Corporation provides complete product support for the Shadow UAV under a PBL contract. This scope of effort includes supply support, maintenance, field service representative support, sustaining engineering, training, and deployment support to training exercises and combat operations.
- *Contract type.* Six of the programs have had the same contract type(s) for the history of the program to the present day. Of these, three are cost-plus contracts, one is a fixed-price contract, and two have a mix of cost-plus and fixed-price contracts. Five of the programs made a transition, where they began as cost plus, but migrated to fixed price after a few years of support.
- *Peak annual funding.* Across the eleven programs, peak annual funding for the prime contract ranged from \$40–\$600 million. For major subcontracts or associate contracts, peak annual funding ranged from \$30–\$60 million.
- *PBL metrics.* Seven of the eleven programs have PBL metrics as part of the contract. Although the specific metrics and definitions vary among the programs, the metrics typically address system availability or readiness, supply support responsiveness, maintenance efficiency or quality, and customer satisfaction with field services support (measured by surveys). The other four programs are a more traditional CLS effort without PBL metrics.
- *Public-private partnerships.* Six of the eleven programs include some form of public-private partnership, where the prime contractor may subcontract to an organic (i.e., government) maintenance depot for some or all of the system depot maintenance.
- *Commercial items.* Three of the eleven programs included support to aircraft engines that are commercial items. For these programs, the support is established at a firm-fixed price per flying hour at a commercial rate.

Further details on each of the eleven programs are provided in Appendix A.

In addition, during our review of these programs, we found that several of them were generating CPRs or some other form of cost reporting from the major sustainment contracts. We wanted to see how this was actually being implemented in the field, and we reviewed the cost reporting for three programs (JSTARS, C-17, and Stryker) in depth. Since the current version of the MIL-HDBK-881A does not provide a program WBS suitable for use in sustainment programs, each program office, working with its contractor(s), developed its own unique program and contract WBS. Our review of the WBS terms and definitions used by each of these programs gave us invaluable insights as we developed our own version of a program WBS as described in Chapters III and IV.

### III. USE CASE ANALYSIS

The first objective of this task was to identify use cases for contractor cost and performance data that describe what data should be collected and how it will be used. Key questions were: What kind of data do we need? When do we need it? And what will we do with it? Our approach for achieving this objective is portrayed in Figure 3.

Use Case Parameters	Use Case Applications					
	Develop cost factors for POMs and budgets	Provide support to contract negotiations	Conduct and update strategy analysis of PBL alternatives	Establish and track cost & performance baselines	Support engineering trade-off analyses over life cycle	Conduct parametric cost estimates for future systems
Nature of support and acquisition strategy						
Dollar value of contract(s)						
Contract terms and conditions						

**Figure 3. Approach for the Use Case Analysis**

We developed a set of cost analysis tasks, referred to as “Use Case Applications” in Figure 3, which logically would need some form of cost and performance data from major sustainment contracts. These tasks were derived from the review of DoD policy concerning product support and PBL, as well as interviews conducted as part of our case studies of the eleven programs described in the previous chapter. We also concluded that the needs for cost and performance data may vary due to different circumstances for each program. We developed a list of features, referred to as “Use Case Parameters” in Figure 3, which collectively describe the nature of a sustainment program. Additional details on applications and parameters are provided in the next two sections of this chapter.

## A. USE CASE APPLICATIONS

The use case applications that we constructed are as follows:

- *Cost Factors for Budgets.* For each major weapon system, each military service needs to develop forecasts of sustainment funding requirements for its Program Objective Memorandum (POM) and annual budget. Although the exact nature of the budget accounts varies by service and system type, nevertheless the nature of the budget accounts requires forecasts by major sustainment element (such as fuel, depot maintenance, repairable items, and consumable items) since they are distinctly funded.
- *Contract Negotiations.* For major sustainment programs, each program office must review contractor cost proposals for the sustainment effort as the basis for negotiations and determination of reasonableness. Typically, the initial cost proposal would support the early fielding and sustainment of the system, and would be subject to renewal with subsequent proposals every few years. It would be important to obtain actual cost performance for these subsequent negotiations, particularly for those programs that intend to migrate from a cost-plus to a firm-fixed-price-contract structure as the program matures.
- *Strategy Analysis.* As discussed in Chapter II, each system program manager is expected to conduct an expanded cost-benefit analysis to determine the most efficient and effective PBL strategy. This analysis not only should be conducted early in the program, but should be updated periodically throughout the life of the program, based on actual cost and performance when available.
- *Cost and Performance Baselines.* As discussed in Chapter II, each system program manager is expected to establish formal baselines for cost and performance early on, and then track actual cost and performance relative to the baselines when actual data are available.
- *Engineering Trade-off Analyses.* The program manager, in conjunction with the system contractor, can continue to refine and improve the system design, with an eye toward improved supportability and reduced logistics footprint, even after the initial fielding of the system. For example, the contractor may propose design modifications and retrofit that can improve hardware reliability and reduce support costs. Actual support cost experience by major sustainment element provides essential data for assessing the costs and benefits of such tradeoffs.
- *Parametric Cost Estimates.* For the larger cost community, cost analysts need actual data from current systems in support of cost estimates of future systems. For example, F-22 actual O&S cost data would be of value to an analyst preparing a cost estimate for the F-35 Lightning Joint Strike Fighter.

## **B. USE CASE PARAMETERS**

The use case parameters in Figure 3 were used to set the criteria for cost and performance reporting.

### **1. Nature of Support and Acquisition Strategy**

From our review of the eleven case studies, we were able to construct a generic representation for the scope of a nominal weapon system sustainment program. Although the specific terminology varied by service and contractor, the most common sustainment activities could be grouped in terms of field or base-level support, supply chain management, maintenance, training services, and other support functions such as systems engineering and program management. Using this generic representation, we constructed a program WBS for sustainment<sup>15</sup> that can be used to identify sustainment costs by functional element.<sup>16</sup> Each program could then tailor and adapt this generic program WBS into its own program WBS, and a subsequent contract WBS, specific to the terminology used in the program and associated contract. Our program WBS with terms and definitions is provided in Appendix C.

We also found that the acquisition strategy for sustainment programs could vary considerably. Most, but not all, of the case studies have a prime contractor for sustainment (usually the original equipment manufacturer) who also serves as the PSI. The prime contractor often is partnered with one or more associate contractors, and usually has several subcontractors that provide specific supplies or services to the program. We therefore constructed a flexible structure for report formats, which

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<sup>15</sup> The program WBS for sustainment is in a sense the mirror image of the O&S Cost Element Structure, which is described in the OSD CAIG Operating and Support Cost-Estimating Guide (October 2007). The CAIG Cost Element Structure is the taxonomy that is used to organize O&S cost estimates, and to provide a uniform data structure for the military service VAMOSC systems. The key point is that the terms and definitions in the Cost Element Structure are written from the point of view of the weapon system users (i.e., customers of logistics goods and services). The terms and definitions used in the program WBS for sustainment must be written from the point of view of the system support providers (i.e., sellers of logistics goods and services). Our program WBS for sustainment was designed to accommodate a simple cross-walk to the Cost Element Structure format to facilitate O&S cost estimates.

<sup>16</sup> In our case studies, we found that several of the sustainment contracts included not only steady-state sustainment activities, but also support investment normally associated with procurement contracts. Examples of such investment include initial spares and technical data development. We determined that our program WBS had to capture such investments, but needed to keep them separately identified from the steady-state sustainment activities.

accommodates cases in which the prime contractor, and possibly a few high-cost associate contractors and subcontractors, provide performance and detailed cost information, whereas the remaining associate contractors and subcontractors provide summary cost information only.

Performance reporting would apply only to PBL contracts, not to traditional CLS contracts. In the case studies, we found that although the specific PBL performance metrics could vary, in general they could be grouped in terms of readiness and availability, maintenance effectiveness and efficiency, supply support responsiveness, software maintenance productivity, training workload, and logistics footprint. We therefore developed a flexible report format that can be tailored to the specific metrics imposed on each PBL contract. For each metric, the contractor reports actual results relative to some kind of target or benchmark, if applicable.

For traditional CLS contracts, there is no performance reporting; however, there is a need for some kind of more limited reporting narrowly focused on operations workload (such as the number and operating tempo of the systems being supported) over the period of contract execution. Such workload data provides various units of measure for sustainment costs that are needed by cost analysts (in the same way that cost analysts need “quantity of end-items produced” as a unit of measure for procurement costs).

## **2. Dollar Value of the Contract(s)**

As mentioned previously, we developed a balanced approach where the higher-cost contracts and subcontracts have performance and more detailed cost reporting, and the lower-cost contracts and subcontracts have less detailed cost reporting. In our approach, we call for performance reporting and detailed cost reporting for those sustainment contracts with an estimated peak annual value greater than or equal to \$100 million (then-year dollars).<sup>17</sup> For contracts and subcontracts with a peak annual value less than \$100 million but greater than or equal to \$50 million, we call for only the (less detailed) summary cost reporting. In addition, we also call for the summary cost reporting for those subcontracts less than \$50 million, but greater than or equal to \$20 million. These reporting thresholds are roughly akin to the thresholds used in the CCDR and EVMS reporting systems.

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<sup>17</sup> Typically, a major sustainment contract consists of a single base year, followed by a few separately priced options for subsequent years. These options roughly correspond to the annual lots associated with procurement contracts.



### **3. Contract Terms and Conditions**

In our review of the eleven case studies, we found a variety of contract types—cost plus, fixed price, or some combination. Similar to CCDR, we call for sustainment cost and performance reporting for all contracts and subcontracts that meet the applicable dollar thresholds, regardless of contract type, except for competitively awarded firm-fixed-price contracts, as long as competitive conditions continue.<sup>18</sup> We also exempt the sustainment of commercial items from cost reporting.

### **4. Use Case Parameter Validation**

To validate these criteria for cost and performance reporting, we applied our dollar thresholds, and selection rules for contract type, for the eleven case studies discussed previously. The resulting reporting requirements are presented in Table 3. The results are intuitive and reasonable. For the six higher-cost cases, performance reporting and detailed cost reporting would be imposed on the prime contractor, and summary cost reporting would be imposed on one or more subcontractors. For the four lower-cost cases, only summary cost reporting would be required. One case (the V-22 engine) would be exempt from any reporting, due to its commercial nature.

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<sup>18</sup> To meet this standard, a program would have to use competitive solicitations not only for the initial contract award, but for subsequent contract awards as well.

**Table 3. Report Formats Required for Case Studies**

System—Contractors	Peak Annual Funding (\$M)	Performance Reporting	Detailed Cost Reporting	Summary Cost Reporting
C-17				
Prime	> 600	X	X	—
Associate/Subs	—	—	—	X
C-130J				
Prime	> 80	—	—	X
Associate/Subs	> 30	—	—	Exempt
JSTARS				
Prime	> 300	X	X	—
Associate/Subs	—	—	—	X
Predator				
Prime	> 40	—	—	X
Associate/Subs	—	—	—	—
F/A-18 E/F				
Prime	> 200	X	X	—
Associate/Subs	—	—	—	X
LPD-17				
Prime	> 20	—	—	X
Associate/Subs	> 30	—	—	X
T-45				
Prime	> 130	X	X	—
Associate/Subs	> 60	—	—	Exempt
V-22 Engine				
Prime	N/A	N/A	N/A	N/A
Associate/Subs	> 30	—	—	Exempt
Stryker				
Prime	> 300	X	X	—
Associate/Subs	—	—	—	X
Shadow				
Prime	> 120	X	X	—
Associate/Subs	—	—	—	X
Hunter				
Prime	> 60	—	—	X
Associate/Subs	—	—	—	—

### C. FEEDBACK FROM GOVERNMENT AND INDUSTRY

Our task order required us to vet the proposed data reporting requirements with the military departments and industry to assess the feasibility of collecting the information without imposing undue burdens on program offices and contractors. Much of this feedback came from our earlier interviews with the program office personnel for the

eleven case studies. In addition, we supported our sponsor in hosting a series of Integrated Product Team (IPT) meetings with representatives from OSD and the military service cost centers; the IPT was used to raise and resolve issues concerning cost reporting for sustainment contracts. The key issues addressed were the frequency of cost reporting,<sup>19</sup> the appropriate level of detail, the dollar threshold, and the need to establish cost reporting for firm-fixed-price contracts.<sup>20</sup>

In addition, we supported a project status briefing to the Procurement Subcommittee of the National Defense Industrial Association; the association was our primary source of feedback from defense contractors. The industry representatives indicated that cost and performance reporting could be imposed on sustainment contracts without significant hardship or cost, but only if two conditions were met. The conditions offered by industry were (1) early definition of cost reporting requirements, well in advance of contract award and (2) flexible reporting requirements, so that contractors could use their existing management control and accounting systems, and avoid extensive revisions to these systems. The representatives also suggested that any attempt to impose reporting retroactively on existing contracts potentially could be disruptive and expensive. Our approach to addressing these concerns is provided in the next chapter.

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<sup>19</sup> For cost analysis purposes, as described in our use case applications, we determined that annual cost and performance reporting was sufficient. However, some IPT representatives were concerned that more frequent reporting (quarterly or even monthly) would be needed for the cost reports to serve as VAMOSC native data sources. VAMOSC implementation was beyond the scope of this study, and we did not address this point.

<sup>20</sup> Most IPT members favored the approach that we adopted, which is based on the current CCDR requirement for firm-fixed-price acquisition contracts. Our approach would require cost reporting for firm-fixed-price sustainment contracts for non-commercial items in a sole-source environment. However, some of our Navy representatives disagreed, and they were opposed to cost reporting on firm-fixed-price contracts under any circumstances.



## IV. STRATEGY FOR SUSTAINMENT DATA REPORTING

This chapter describes our recommended strategy for data reporting—Sustainment Cost and Performance Data Reporting (SCPDR)—for major weapon system sustainment contracts. It introduces our proposed documents and data reports and our envisioned reporting process and timelines. This chapter also discusses policy issues for any sustainment data reporting system that are worthy of further government deliberations as the system is implemented. Note that a key assumption on our part (implied in our original task order) is that the responsibility for management of any sustainment cost and performance data reporting system would be assigned to the DCARC, since it already has the institutional processes and infrastructure for the systematic collection of cost data reports from major weapon system development and procurement contracts.

### A. PROPOSED DOCUMENTS AND DATA REPORTS

Part of our task order was to make appropriate recommendations that can be incorporated into DoD instructions, manuals, and handbooks to institutionalize the collection of sustainment cost and performance data. Our proposed documents and data reports that comprise the SCPDR system are the following:

- *SCPDR Overview.* The overview provides the overarching instructions to program offices and contractors for the SCPDR process. This document was prepared in a format that would be suitable as a new chapter in DoD 5000.04-M-1, “Cost and Software Data Reporting Manual.” The overview is provided in Appendix B.
- *Sustainment Program Work Breakdown Structure.* This document provides the program WBS, and associated definitions, for weapon system sustainment. This document was prepared in a format that would be suitable as a new appendix in DoD Military Handbook MIL-HDBK-881A, “Work Breakdown Structure for Defense Materiel Items.” The program WBS document is provided in Appendix C.
- *Sustainment Contract Work Breakdown Structure.* In our proposed SCPDR process, prime contractors and reporting subcontractors submit their contract WBS, which extends and refines the program WBS, before the actual data reporting begins. We determined that the existing Data Item Description (DI-MGT-81334C), without modification, can be used to provide the

contractors with the appropriate instructions for the completion of the contract WBS.

- *SCPDR Plan.* The SCPDR plan is prepared by the program office. It describes the planned reporting over the life of the contract. It itemizes what data reports will be provided, when they will be provided, and which contractor(s) and subcontractor(s) will provide them.
- *Sustainment Cost Data Breakout.* This data report is used by appropriate contractors and subcontractors to submit the more detailed cost information for the higher dollar value contracts that are subject to cost reporting. The breakout displays actual costs over the reporting period by contract WBS element, which are further broken down as direct labor, categories of direct material, overhead, and other indirect costs.
- *Sustainment Performance and Productivity Report.* This data report is used by appropriate contractors and subcontractors to submit information on sustainment performance, productivity, and workload, as applicable. For PBL contracts, the report is used to display relevant metrics for a wide range of topics such as operations, readiness and availability, maintenance, supply support, software maintenance, logistics footprint, and training. For traditional CLS contracts without performance-based provisions, the report is more narrowly focused on workload data (such as the number and operating tempo of the systems being supported).
- *Sustainment Cost Data Summary.* This data report is used by appropriate contractors and subcontractors to submit the less detailed cost information for the lower dollar value contracts that are subject to cost reporting. The summary displays actual costs over the reporting period by contract WBS element.

Reporting contractors will submit either the Sustainment Cost Data Summary or the Sustainment Cost Data Breakout, but not both. Appendix D provides Microsoft Excel templates for each of the SCPDR Plan, Sustainment Cost Data Summary, Sustainment Cost Data Breakout, and Sustainment Performance and Productivity Report. Appendix D also provides our proposed Data Item Descriptions for each of these data reports. Appendix E provides sample data reports (for these four data reports) using illustrative data for a hypothetical program.

Note that for programs with one or more direct reporting subcontractors, the situation would arise where both the prime contractor and the subcontractor(s) will both report costs for the same work. It is important for the data report users (i.e., cost analysts) to have complete visibility into these relationships. Our reporting structure provides this visibility so that cost analysts avoid double-counting subcontract costs. Each reporting subcontractor provides a unique subcontract WBS that is an extension of the prime

contract WBS to permit a straightforward mapping of reported costs. In addition, the Sustainment Cost Data Breakout used by the prime contractor specifically identifies “major subcontracts-purchased equipment” and “major subcontracts-purchased services” as distinct categories of direct cost for the prime contractor. In this way, the subcontractor reported costs can be clearly identified within the overall structure of the prime contractor reported costs.

## **B. PROPOSED REPORTING TIMELINE**

The timeline for Sustainment Cost and Performance Data Reporting is as listed below:

- Draft SCPDR Plan provided to DCARC 60 days before release of draft RFP
- DCARC provides feedback within 15 days
- Final SCPDR Plan provided to DCARC 60 days before release of final RFP
- DCARC provides approval within 15 days
- Contract WBS submitted within 60 days from contract award
- Initial report(s) submitted within 120 days from contract award
- Interim report(s) submitted annually thereafter
- Final report(s) submitted upon contract completion

Note that a draft version of the SCPDR Plan is to be provided well in advance of the release of the draft RFP. The intent is that the draft RFP would include language that describes the SCPDR requirement to be imposed on the prime contractor, including the requirement to flow down cost and performance reporting to major subcontractors, if applicable. The Defense Cost and Resource Center is provided the opportunity to review and comment on the draft SCPDR Plan. The DCARC also provides formal approval of the final version of the SCPDR Plan before release of the final RFP. Also note that each reporting contractor submits its proposed contract WBS within 60 days of contract award, before the actual data reporting begins. The initial data reports (the summary, breakout, and performance and productivity reports) are submitted within 120 days of contract award. The submission of these initial reports provides the program office (and possibly the DCARC) an opportunity to review the report data structure before significant cost and performance reporting begins. Interim reports are provided on an annual basis, and a final report is submitted upon contract completion. For contracts of duration of one year or less, only the initial report(s) and the final report(s) are required.

## **C. ADDITIONAL ISSUES FOR GOVERNMENT CONSIDERATION**

In our proposed strategy, we envision providing considerable flexibility to program managers in adopting our program WBS and various report formats. Specifically, each program manager would be free to modify the program WBS as needed, and would be given wide latitude to develop the more refined contract WBS—in consultation with the prime and major associate contractors and subcontractors—to reflect the specific circumstances and content of the program. Moreover, each program would be provided considerable flexibility in the specific performance and productivity metrics to be reported as part of the Sustainment Performance and Productivity Report.

There are two reasons for providing such flexibility. First, our approach is consistent with the nature of the PBL policy itself. As we previously discussed, the OSD policy on PBL as stated in the Defense Acquisition Guidebook establishes a general framework for PBL, but allows the program manager considerable discretion in the actual implementation. Second, our approach is a new concept, and should be further validated and refined. We understand that our sponsors intend to conduct pilot programs for cost and performance reporting on major sustainment contracts that will be used for proof of concept. Providing maximum flexibility to the managers of the pilot programs has the potential to encourage experimentation and innovation, which may well result in new ideas or approaches that could be used to improve our initial concept. Any new ideas or approaches should be evaluated for possible improvements to the general DoD-wide sustainment cost and performance reporting system before the concept for such reporting is finalized.

However, it is also possible that we have permitted too much flexibility, to the point where there would be insufficient data standardization across the services and programs (especially in terms and definitions), or that overall data quality would be poor due to lack of sufficient control and oversight from the DCARC. In the future, it might be necessary for the DCARC to exert more control to ensure data quality. Possible steps that could be taken include:

- Require the program office to submit any proposed revisions to the program WBS as part of the initial SCPDR Plan, subject to DCARC review and approval.
- Require the contract WBS (and associated data dictionary) to be subject to DCARC review and approval (rather than merely require the contract WBS to be submitted for information).



- Require the specific SCPDR performance metrics (and associated definitions) to be submitted for DCARC review and approval (perhaps within 60 days of contract award) well before the initial submission of the Sustainment Performance and Productivity Report.
- Require each program to hold a joint government-contractor post-award conference (perhaps within 30 days of contract award). The purposes of such a conference would be to review the contractor processes that will support the cost and performance reporting and to ensure contractor understanding of the data reporting requirements. The conference would be supported by various functional disciplines (contracting, program management, financial management, cost estimating, engineering, and logistics) from both the program office and the contractor, and would also include assistance from the Defense Contract Management Agency (DCMA) and the Defense Contract Audit Agency (DCAA).
- Establish informal reviews by experienced O&S cost analysts from the CAIG, military service cost centers, or possibly contractor support. These reviews would apply to the SCPDR Plans and the various cost and performance reports.
- Establish formal review and audit procedures for the cost and resource reporting to be conducted jointly by DCMA and DCAA. DCMA would conduct the functional review of the data (including the setup and use of the contract WBS), and DCAA would conduct the technical audit of the contractor accounting system to ensure accuracy of the reported cost data. Reviews and sample audits could be conducted at each contractor facility on an annual basis, or when requested by users who report some apparent problem with the data.



## V. ASSESSMENT OF DCARC WORKLOAD

Our task order required us to make appropriate recommendations to ensure that the Defense Cost and Resource Center (DCARC) systems and staffing can support a new mission associated with Sustainment Cost and Performance Data Reporting (SCPDR). To do this, we obtained the current workload and staffing for the DCARC associated with the ongoing Cost and Software Data Reporting (CSDR). We then made several assumptions about the likely volume of SCPDR Plans and reports that would be processed by the DCARC to project the likely increases in workload and staffing requirements.

### A. CURRENT DCARC WORKLOAD

As a first step, we obtained actual data on current DCARC workload for 2006 and 2007. By workload data, we mean (1) the number of weapon systems subject to CSDR, and (2) the volume of plans, contract WBS submissions, and data reports (CCDR and SRDR combined) subject to DCARC validation. The results (shown on an average annual basis) are provided in Table 4.

**Table 4. Current Annual DCARC Workload**

<i>Number of Active Weapon Systems Reporting</i>	100
Number of CSDR Plans Validated	610
Number of Contract WBS Submissions Validated	120
Number of Data Reports Validated	1,350
Total Number of Documents Validated	2,080

In addition to this workload associated with review and processing (plans, documents, and data reports), the DCARC has additional workload associated with training government and contractor personnel, and maintaining the DCARC Web site and the related DACIMS Web-based application.

## **B. KEY ASSUMPTIONS ABOUT SCPDR**

Our intent was to make a projection of the potential increase to DCARC workload that would be due to the introduction of SCPDR. To do so, we needed to make several assumptions about the SCPDR process. These assumptions are as follows:

- Roughly 30 weapon system sustainment programs would be subject to SCPDR. We identified 25 current systems as candidates, based on our review of annual system CLS costs (that exceeded the \$100 million threshold) that we extracted from service VAMOSC data. We also added an additional five systems for future growth.
- For each system, we assumed that there would be one prime contractor, one associate contractor, and two subcontractors.
- For each system, we assumed that there would be one SCPDR Plan (initial or update) annually. Note that in our concept, unlike the current CSDR process, there are no contract or subcontract plans that provide more implementation details.
- For each system, we assume that the average contract would be of 4 years duration (base year plus three additional annual options).
- For each system, we assume that a contract WBS would be submitted with each new contract.
- For each system, we assume that the prime contractor would be subject to the detailed cost report (i.e., Sustainment Cost Data Breakout) and the performance report (i.e., Sustainment Performance and Productivity Report), while the associate and subcontractors would be subject only the less detailed cost summary (i.e., Sustainment Cost Data Summary). These reports would be submitted annually.
- Systems with annual CLS costs greater than \$50 million, but less than \$100 million, would submit Contract Performance Reports that would not require significant DCARC review.

We also considered an excursion where SCPDR would be subject to stricter oversight and control (as discussed in the previous chapter), comparable to the current CSDR process. In the excursion we assume it would be necessary to impose quarterly reporting due to the needs of VAMOSC implementation.

## **C. PROJECTED DCARC WORKLOAD INCREASE**

Given these assumptions, we made a rough estimate of the additional DCARC (steady-state) workload that would be created if SCPDR were implemented. The results are shown in Table 5.

**Table 5. Projected Annual DCARC Workload Increase**

	IDA Concept	With More Oversight
<i>Number of Active Weapon Systems Reporting</i>	30	30
Number of CSDR Plans Validated	30	180
Number of Contract WBS Submissions Validated	30	40
Number of Data Reports Validated	150	400
Total Number of Documents Validated	210	620
Percentage Increase Over Current Baseline	10%	30%

For the “IDA Concept” case, which is based on the assumptions previously mentioned, there would be a roughly 10-percent increase in DCARC workload associated with document review and processing. For the “With More Oversight” case, which assumes additional oversight and control similar to the current CCDD process, as well as quarterly data reporting, there would be a roughly 30-percent increase.

We understand that the DCARC currently has seven full-time equivalents (FTEs) associated with contractor support for the review and processing of the CSDR documents. Assuming a 10-percent increase in such workload would indicate a need for an additional 0.7 FTE. To allow for the additional work for training and DACIMS software modifications, we assumed that the “IDA Concept” case would result in a need for 1 additional FTE in DCARC contractor support. Assuming a 30-percent increase in workload would indicate a need for 2.1 FTEs for document review and processing. Again, allowing for training and software modifications, we assumed that the “With More Oversight” case would result in a need for 2.5 additional FTEs.

Both of these estimates are steady-state numbers, which would not be achieved immediately. Assuming that the pilot programs are conducted as early as FY 2009, the actual SCPDR implementation would not begin until FY 2010. It therefore seems reasonable that steady state would not be reached until FY 2011 at the earliest. On the other hand, it would be desirable to front-load the staffing increase to permit the early nonrecurring activities for the initial development of the training program and the software modifications. A prudent middle-of-the-road option for the DCARC would be to plan on the addition of 1 FTE beginning in FY 2010, one year after the assumed evaluation of the pilot programs. Longer term, we estimate that DCARC staffing would need to be increased between 1.0 and 2.5 FTEs, depending on the degree of needed oversight. This estimate can be further refined at the SCPDR process matures and some of the key policy decisions about oversight are made.



## VI. CONCLUSIONS

The broad cost analysis community needs data based on actual operating and support (O&S) cost experience for major weapon systems. Such data are needed because they form the bases for cost estimates for current and future systems. For the most part, this need has been reasonably satisfied through the service Visibility and Management of Operating and Support Costs (VAMOSOC) data systems and other equivalent data sources. However, the existing O&S data sources fail to provide visibility into O&S functional elements (such as depot maintenance or spare parts) when the weapon system support is obtained primarily by a Performance Based Logistics (PBL) contract or other form of Contractor Logistics Support (CLS), which typically provide multi-function support as part of a single contract. Moreover, program managers of PBL/CLS contracts need actual cost and performance data to monitor and assess contract execution. In addition, such data are needed to (1) conduct and update a product support strategy analysis of PBL alternatives, (2) establish and track cost and performance baselines, (3) support engineering tradeoff analyses over the system life cycle, and (4) provide support to contract negotiations.

DoD already has made an institutional commitment to the systematic, managed collection of actual cost experience for the development and procurement of major weapon systems. This commitment has been made by the DoD-wide implementation of the Cost and Software Data Reporting (CSDR) system, which is managed by the Defense Cost and Resource Center (DCARC). Without this reporting system, DoD cost analysts would rely on the ad hoc, unmanaged collection of actual cost experience, which would have many undesirable characteristics—namely uncoordinated, inefficient, duplicative collection activities providing fragmented and non-standard data with limited distribution and application. Given DoD's increasing reliance on PBL/CLS contracts, it is now time for DoD to make a similar institutional commitment for the managed collection of actual cost and performance experience for major sustainment contracts.

Toward that end, IDA, in the course of this project, has prepared the basic structure for such cost and performance data reporting. We have developed the concept and timeline for the reporting process and addressed issues of planning, procedures, contracting, and processing the reported data. We have provided specific reporting

instructions and data report formats that can be used to extract appropriate data from the major weapon system sustainment contractors. Our proposed reporting system utilizes the existing DCARC infrastructure to facilitate report planning and execution, and to achieve economies of scale with the ongoing cost reporting for acquisition contracts. Feedback for industry indicates that cost and performance reporting could be initiated on new sustainment contracts without undue hardship or cost, provided that (1) reporting requirements are specified well before contract award, and (2) contractors are provided a reasonable degree of flexibility in establishing the reporting data formats.

Our recommended elements of the proposed reporting process are sufficient for a preliminary trial phase consisting of a limited number of pilot programs (perhaps two programs from each military department) to be initiated by the task sponsors. Further refinement of the reporting process and its individual elements can take place after evaluation of the results of the pilot programs.



## **APPENDIX A: CASE STUDY SUMMARIES**

This appendix provides a summary of the scope, contract type, performance metrics, and other contract terms and conditions for each of the eleven case studies reviewed as part of this study.

### **C-17 GLOBEMASTER III STRATEGIC AIRLIFT AIRCRAFT**

**Sustainment Program Name:**

Flexible Sustainment (1997–2003)

Total System Support Responsibility (2004–present)

**Prime Contractor:**

Boeing Integrated Defense Systems

**Major Associate Contractors or Subcontractors:**

Pratt & Whitney (engines)

Northrop Grumman (various hardware items)

BAE Systems (various avionics)

**Scope of Effort:**

Boeing performs Total System Support Responsibility for the sustainment and product support integration of the C-17 airlift aircraft. This includes heavy maintenance and analytical condition inspections, painting, home-station checks, materiel management and spares procurement, engine maintenance, sustaining engineering and program management, technical orders, support equipment, and component repair.

**Contract Type(s):**

Cost plus award fee (1997–2000)

Mix of cost plus award fee, fixed price award fee, and firm fixed price (2000–2003)

Mix of fixed price award fee and firm fixed price (2004–present)

**Contract Peak Annual Value:**

> \$600 million

**PBL Metrics:**

Aircraft availability

Flying hours achievable

Depot scheduling

Parts issue effectiveness

Mission Incapable Critical Action Procurement (MICAP) parts management

Customer satisfaction

**Remarks:**

Boeing has Public-Private Partnerships with three Air Logistics Centers.

**C-130J HERCULES TACTICAL TRANSPORT AIRCRAFT****Sustainment Program Name:**

Interim Contractor Support (1996–2001)

Contractor Logistics Support (2002-present)

**Prime Contractor:**

Lockheed Martin

**Major Associate Contractors or Subcontractors:**

Rolls-Royce (engine)

**Scope of Effort:**

Lockheed Martin performs comprehensive contractor logistics support for the C-130J aircraft. This includes depot maintenance, spares and technical data management, engineering services, program management support, training, and aircraft modifications.

**Contract Type(s):**

Mix of cost-plus fixed fee, time and material, cost reimbursable, fixed price award fee, and firm fixed price (aircraft)

Firm fixed price (engine)

**Contract Peak Annual Value:**

> \$80 million (aircraft)

> \$30 million (engine)

**PBL Metrics:**

Not applicable

**Remarks:**

Lockheed Martin has a Public-Private Partnership with Warner Robins Air Logistics Center.

The Rolls-Royce AE 2100D3 turboprop engine is a commercial item that is Government Furnished Equipment (GFE). The engine core is common to the V-22, C-27, Global Hawk UAV, and several commercial aircraft.

**JOINT SURVEILLANCE AND TARGET ATTACK RADAR SYSTEM (JSTARS)****Sustainment Program Name:**

Total System Support Responsibility (TSSR)

**Prime Contractor:**

Northrop Grumman

**Major Associate Contractors or Subcontractors:**

AAR (supply chain)

Norden (radar)

Pratt & Whitney (engines)

**Scope of Effort:**

Northrop Grumman performs Total System Support Responsibility for the sustainment and product support integration of the JSTARS weapons system. This includes maintenance (of the air vehicle, ground support systems, and operational and maintenance trainers), field service representatives, supply chain and spares management, systems engineering and program management, training, software maintenance, technical data, and hardware modifications (block upgrades).

**Contract Type(s):**

Mix of cost plus award fee and firm fixed price

**Contract Peak Annual Value:**

> \$300 million

**PBL Metrics:**

Aircraft possessed days

Not-mission-capable supply

Average MICAP delivery hours

Readiness spares package (RSP) fill rate

Trainer availability

Programmed depot maintenance (PDM) aircraft quality

Software productivity

**Remarks:**

Northrop Grumman has a Public-Private Partnership with Warner Robins Air Logistics Center.

**RQ-1/MQ-1 PREDATOR UNMANNED AERIAL VEHICLE****Sustainment Program Name:**

Contractor Logistics Support

**Prime Contractor:**

General Atomics

**Major Associate Contractors or Subcontractors:**

L3/Raytheon (communications)

Northrop Grumman (radar)

Boeing (mission planning system)

**Scope of Effort:**

General Atomics provides comprehensive contractor logistics support for the Predator UAV. This includes flight operations support, field support representatives, urgent repairs and services, program management, configuration management, technical manual and software maintenance, inventory control point and spares management, depot repairs and analytical condition inspections.

**Contract Type(s):**

Cost plus fixed fee (2000–2004)

Mix of cost plus fixed fee and firm fixed price (2005–present)

**Contract Peak Annual Value:**

> \$40 million

**PBL Metrics:**

Not applicable

**Remarks:**

None

**F/A-18E/F SUPER HORNET FIGHTER/ATTACK AIRCRAFT****Sustainment Program Name:**

F/A-18 E/F Integrated Readiness Support Training (FIRST)

**Prime Contractor:**

Boeing Integrated Defense Systems

**Major Associate Contractors or Subcontractors:**

General Electric (engines)

Honeywell (auxiliary power unit)

Smiths (stores management system)

Numerous others

**Scope of Effort:**

The Boeing FIRST contract provides logistics support for roughly 75 percent of the F/A-18E/F systems and components. This includes supply chain management, provisioning and warehousing, shipping and transportation, obsolescence management, reliability improvements, repairs and overhauls, configuration management, program management, sustaining engineering, integrated information systems, support equipment, and technical publications, modifications and retrofit, and fleet maintenance training. In addition, there are several PBL contracts with the original equipment manufacturers of major subsystems (e.g., stores management system, radar) and individual components (e.g., auxiliary power unit, tires). The Naval Inventory Control Point (NAVICP) serves as the product support integrator.

**Contract Type(s):**

Mix of cost plus incentive fee and cost plus award fee (2001–2003)

Mix of fixed price incentive fee and fixed price award fee (2004–2005)

Firm fixed price (2006–present)

**Contract Peak Annual Value:**

> \$200 million (FIRST)

**PBL Metrics:**

Operational availability

Operating cost per flight hour

Depot overhaul turnaround time

Reliability

Supply response time—repairable

Supply response time—consumable  
Average age of unfilled backorders

**Remarks:**

Boeing has Commercial Service Agreements (similar to Public-Private Partnerships) with three Naval Air Systems Command (NAVAIR) Depots.

**LPD-17 AMPHIBIOUS LANDING SHIP DOCK**

**Sustainment Program Name:**

Life-Cycle Engineering and Support

**Prime Contractor:**

Northrop Grumman (ship proper)

**Major Associate Contractors or Subcontractors:**

Raytheon (ship electronic systems)

**Scope of Effort:**

Northrop Grumman (formerly Litton Avondale) provides life-cycle engineering and support services to the LPD-17 amphibious transport dock. This includes maintenance and modernization planning, configuration data management, homeport technical support, sustaining engineering, obsolescence management, material readiness team operations, emergent repair provisions, and training and logistics support.

Raytheon provides life-cycle engineering and support on ten shipboard electronic systems. Includes PBL and integrated support services for sustainment of the complete shipboard mission systems suite. Actual scope of the effort varies by system.

**Contract Type(s):**

Cost plus award fee (Northrop Grumman)

Cost plus award fee (Raytheon)

**Contract Peak Annual Value:**

> \$20 million (Northrop Grumman)

> \$30 million (Raytheon)

**PBL Metrics:**

Not applicable

**Remarks:**

Raytheon was a subcontractor for the ship design and construction phase, but has transitioned to an associate contractor (dealing directly with the Naval Sea Systems Command) for the sustainment activities.

Much of the LPD-17 shipboard equipment (roughly 80 percent) is legacy hardware, with its own support structure in place, and not sustained through the Northrop Grumman and Raytheon contracts.

## **T-45 TRAINING SYSTEM**

### **Sustainment Program Name:**

Contractor Logistics Support

### **Prime Contractor:**

Boeing Aerospace Support

### **Major Associate Contractors or Subcontractors:**

Rolls-Royce (engines)

Raytheon (avionics)

### **Scope of Effort:**

Boeing provides all logistics support to the T-45 Goshawk training aircraft and related ground training systems. This includes flight-line operations support and maintenance, component repair, depot maintenance, corrosion control, paint removal and painting, and spares inventory management. Boeing also is responsible for the operation, maintenance, and support of the ground training systems.

### **Contract Type(s):**

Mix of cost plus fixed fee and firm fixed price (aircraft)

Firm fixed price (engine)

### **Contract Peak Annual Value:**

> \$130 million (aircraft)

> \$60 million (engine)

### **PBL Metrics:**

Operational availability

Operating cost per flight hour

Maintenance cancellation rate

Average number of outstanding discrepancies (daily)

Average number of outstanding discrepancies (upon completion of phase inspection)

### **Remarks:**

Boeing has a Public-Private Partnership with NAVAIR Depot Jacksonville.

Although the Rolls-Royce Adour F405-RR-401 engine is technically not a commercial item, it had previously been employed on several foreign aircraft. Rolls-Royce provides a fixed-price-per-hour, commercial-like arrangement ("Power By the Hour") for product support (engine maintenance, field support, and parts supply management) at a guaranteed level of engine availability.

## **V-22 ENGINE (ROLLS-ROYCE LIBERTY AE 1107C)**

### **Sustainment Program Name:**

Power By The Hour

### **Prime Contractor:**

Rolls-Royce

**Major Associate Contractors or Subcontractors:**

None

**Scope of Effort:**

Rolls-Royce provides complete coverage of engine maintenance and logistics support at a fixed price per flying hour. The coverage includes unit exchange of line replaceable units, replacement of spare parts, scheduled and unscheduled maintenance, replacement of life limited parts, and incorporation of engine update modifications.

**Contract Type(s):**

Firm fixed price (engine)

**Contract Peak Annual Value:**

> \$30 million (engine)

**PBL Metrics:**

Engine availability

**Remarks:**

Rolls-Royce has a Public-Private Partnership with Naval Air Station New River, North Carolina.

The Rolls-Royce AE 1107C engine is a commercial item that is Government Furnished Equipment. The engine core is common to the C-130J, C-27, Global Hawk UAV, and several commercial aircraft.

**STRYKER ARMORED COMBAT VEHICLE****Sustainment Program Name:**

Contractor Logistics Support

**Prime Contractor:**

General Dynamics Land Systems

**Major Associate Contractors or Subcontractors:**

Ball Aerospace (satellite communications)

Enigma (maintenance and repair web application)

M&E Group Ltd. (vehicle maintenance)

**Scope of Effort:**

General Dynamics Land Systems provides comprehensive contractor logistics support for the Stryker armored vehicle, for both peacetime stateside locations as well as wartime deployed units. This includes maintenance (comprehensive vehicle maintenance until initial training of organic military personnel, followed by maintenance assistance and augmentation to organic maintenance after initial training), repair and overhaul of major items, warehousing and supply support, sustaining engineering, configuration management, obsolescence management, technology and reliability improvement upgrades, and support to exercises and deployments.

**Contract Type(s):**

Cost plus fixed fee (current contracts)

Firm price plus award fee (goal for future contracts)

**Contract Peak Annual Value:**

> \$300 million

**PBL Metrics:**

Vehicle availability (before initial training of military personnel)

Vehicle availability (after initial training of military personnel)

Repair turnaround time for repairable items

Supply availability

Order ship time

Customer satisfaction (survey)

**Remarks:**

Recently, the contractor received additional funding for the remanufacture (“reset”) of combat deployed vehicles.

**RQ-7B SHADOW 200 UNMANNED AERIAL VEHICLE****Sustainment Program Name:**

Performance Based Logistics Phase I (2003–2004)

Performance Based Logistics Phase II (2005–2007)

Performance Based Logistics Phase III (2008–beyond)

**Prime Contractor:**

AAI Corporation

**Major Associate Contractors or Subcontractors:**

BAE Systems (electro-optical sensor)

Raytheon (ground control station)

UAV Engines Ltd. (engine)

Sierra Nevada (landing gear)

**Scope of Effort:**

AAI provides complete product support for the Shadow UAV, which includes supply support, maintenance, field support representatives, sustaining engineering, training, and deployment support to training exercises and combat operations.

**Contract Type(s):**

Cost plus fixed fee with incentives (Phases I and II)

Fixed price plus award fees (Phase III)

**Contract Peak Annual Value:**

> \$120 million

**PBL Metrics:**

Mean Time Between System Abort

Supply Requisition Customer Wait Time

Field Service Representative Performance

System Status Readiness

Mean Time Between Failure



Mean Time To Repair  
Training Equipment Availability

**Remarks:**

None

**RQ-5A/MQ-5B HUNTER UNMANNED AERIAL VEHICLE**

**Sustainment Program Name:**

Contractor Logistics Support

**Prime Contractor:**

Northrop Grumman (formerly TRW)

**Major Associate Contractors or Subcontractors:**

Israeli Aircraft Industries

Moto Guzzi (engine)

**Scope of Effort:**

Northrop Grumman provides comprehensive contractor logistics support for the Hunter UAV, which includes supply support, maintenance, field support representatives, sustaining engineering, training, and deployment support to training exercises and combat operations.

**Contract Type(s):**

Cost plus fixed fee

**Contract Peak Annual Value:**

> \$60 million

**PBL Metrics:**

Not applicable

**Remarks:**

None



## **APPENDIX B:**

### **PROPOSED INSTRUCTION FOR SCPDR**

This appendix provides our proposed overview instructions for Sustainment Cost and Performance Data Reporting (SCPDR). These instructions were prepared in a way to be suitable as a new chapter in the Cost and Software Data Reporting (CSDR) Manual (DoD 5000.04-M-1). With this approach, the process envisioned in these instructions would be mandatory.

As an alternative, these instructions could be incorporated into the Defense Acquisition Guidebook. With this approach, these instructions would be provided as a guide, but would not be mandatory. In such a case, the instructions would need to be modified slightly. In particular, any use of “shall” or “will” would need to be changed to “should.”

## Sustainment Cost and Performance Data Reporting (SCPDR)

### Introduction

*[Note: This section has been written to be suitable as a chapter in the “Cost and Software Data Reporting (CSDR) Manual,” DoD 5000.04-M-1.]*

This chapter presents an overview of the new Sustainment Cost and Performance Data Reporting (SCPDR) process that has been established for high-dollar-value weapon system sustainment contracts within the Department of Defense. “Sustainment contract” in this context refers to Performance Based Logistics (PBL), Contractor Logistics Support (CLS), Interim Contractor Support (ICS), or other similar arrangement. The intended purpose of the SCPDR process is to provide the broad DoD cost analysis community with data that could be used to help (1) develop cost factors for annual sustainment budgets, (2) provide support to contract negotiations, (3) conduct and update business case (or similar) analyses of alternative sustainment acquisition strategies, (4) establish and track cost and performance baselines for sustainment, (5) conduct tradeoff analyses over the system life cycle, and (6) prepare parametric support cost estimates for future systems using historical cost data collected from current systems.

The SCPDR process has been crafted to strike a balance between (on one hand) obtaining more detailed and complete data on major sustainment contracts, and (on the other hand) avoiding excessive reporting burdens on contractors. This process establishes a reasonable degree of data standardization and definition throughout the Department of Defense, but permits flexible reporting arrangements that can be tailored to the circumstances of individual programs and associated contracts. In addition, the SCPDR planning process for each program begins early (well before contract award), so that contractors can anticipate the requirements for cost and performance reporting as part of their internal management procedures and accounting systems.

Administration of the SCPDR reporting system is assigned to the Defense Cost and Resource Center (DCARC). The DCARC reviews and approves the SCPDR plan for each program. In addition, the DCARC collects all of the SCPDR information in electronic form, and serves as the DoD repository for all SCPDR data. The data are made available to the DoD-wide cost community, with the presence of strict safeguards to ensure the protection of company proprietary data. Further information is available via the DCARC Web site at <http://dcarc.pae.osd.mil>.

### Report Forms

The SCPDR process is built around the use of the following reporting forms:

- Sustainment Cost and Performance Data Reporting Plan. The SCPDR plan is used to describe the planned reporting for each major sustainment program and the associated contract(s) and subcontracts(s) that meet the reporting criteria. The

SCPDR plan describes what data are needed, when the data are needed, and who will provide the data. The plan is submitted by a responsible program office or similar entity that is responsible for the specific sustainment program that is to be reported.

- Program Work Breakdown Structure. The SCPDR process has established a generic program Work Breakdown Structure (WBS) and associated definitions for the sustainment of major weapon systems. *[Note: The program WBS for sustainment is available in an appendix suitable for inclusion in "Work Breakdown Structures for Defense Materiel Items," MIL-HDBK-881A.]* The program WBS may be tailored by the sustainment program manager to meet the specific needs of individual programs.
- Contract Work Breakdown Structure. The contract WBS is an extension to the program WBS that allows for tailoring to the contract statement of work and contract line item structure, as well as the discretionary use of lower levels in the WBS hierarchy for high-cost or high-risk elements. The contract WBS is submitted by the contractor following the format in the existing Data Item Description DI-MGMT-81334C, "Contract Work Breakdown Structure." A common contract WBS shall be used for the CPR and the SCPDR for any SCPDR reporting contract or subcontract that is also subject to Contract Performance Reports (CPRs), following the Earned Value Management System guidelines.
- Sustainment Cost Data Breakout. The Sustainment Cost Data Breakout (SCDB) is used by contractors to submit a report of actual cost experience over the appropriate reporting periods following the hierarchy of the approved contract WBS. The SCDB is used only on the higher dollar value sustainment contracts (the other reporting contracts will use the cost summary report described below). The SCDB provides more detailed cost reporting, where the costs for each WBS item are further broken down into direct labor, categories of direct material, overhead, and contract-wide costs (such as General & Administrative and profit).
- Sustainment Performance and Productivity Report. The Sustainment Performance and Productivity Report (SPPR) is used by contractors to submit data on contract performance, productivity, and workload over the appropriate reporting periods. The metrics suitable for assessing sustainment performance vary widely across programs, and the choice of metrics that are displayed in the SPPR must be tailored to individual contract scope, terms, and conditions. For PBL contracts, the SPPR can be used to provide performance data on a wide range of topics such as operations, readiness and availability, maintenance, supply support, software maintenance, logistics footprint, and training. For each performance metric, the contractor reports actual results relative to contract requirements or goals, if applicable. For ICS or CLS contracts, the SPPR is used for more limited reporting focused on operations workload (such as the number of systems and operating tempo of the systems being supported).

- Sustainment Cost Data Summary. The Sustainment Cost Data Summary (SCDS) is used by contractors to submit a report of actual cost experience over the appropriate reporting periods following the hierarchy of the approved contract WBS. The SCDS is used for reporting on lower dollar value contracts that do not meet the criteria for reporting with the more detailed breakout form described above.

Templates and associated instructions for each of the SCPDR reports can be found on the DCARC Web site.

### Reporting Requirements and Thresholds

The SCPDR process applies to sustainment contracts and major subcontracts associated with major DoD weapon systems (as identified by the Under Secretary of Defense for Acquisition, Technology and Logistics in either the Defense Acquisition Executive Summary or the Defense Acquisition Executive Summary-Sustainment systems).

The SCPDR process applies specific dollar thresholds to determine which contracts must participate in cost and performance data reporting. These dollar thresholds are assessed based on the projected peak annual funding for the entire contract. A contract with peak annual funding over the thresholds must participate in cost and performance data reporting for the entire duration of the contract (even for any years that may be below the threshold). The peak annual funding is to be projected using the estimated contract price at completion (i.e., initial contract award plus all anticipated contract changes), based on the assumption that all contract options will be exercised.

The specific dollar thresholds for reporting are as follows:

- Contracts or subcontracts with a projected peak annual funding that is greater than \$100 million will submit the CWBS, and both the SCDB and the SPPR.
- Contracts with a projected peak annual funding that is less than or equal to \$100 million, but greater than \$50 million, will submit the CWBS and the SCDS.
- Subcontracts with a projected peak annual funding that is less than or equal to \$100 million, but greater than \$20 million, will submit the CWBS and the SCDS.
- Contracts and subcontracts below these thresholds need not submit any cost and performance data reports.
- For any SCPDR reporting contract or subcontract that also is subject to Contract Performance Reports (CPRs) following the Earned Value Management System guidelines, with a projected peak annual funding that is less than or equal to \$100 million, the contractor or subcontractor may submit the CPR in lieu of the SCDS, provided that the CWBS has been submitted to the DCARC.

For any sustainment program that will be supported by one or more contracts or subcontracts that qualify for SCPDR, the appropriate program office or similar entity must provide a SCPDR plan to the DCARC following the timeline described in the next section.

## Reporting Timeline

The various SCPDR reports are to be submitted following the timeline below:

- The draft SCPDR plan is to be provided to the DCARC for review and comment at least 60 calendar days prior the release of any draft Request for Proposal (RFP) associated with the sustainment effort.
- The DCARC will provide any feedback or comments to the government organization that submitted the draft SCPDR plan within 15 calendar days of plan submission.
- The final SCPDR plan is to be provided to the DCARC for approval at least 60 calendar days prior the release of any final RFP associated with the sustainment effort.
- The DCARC will provide notification of its approval to the government organization that submitted the final SCPDR plan within 15 calendar days of plan submission.
- Any reporting contractor or subcontractor shall be required to submit its contract WBS, following the format in the existing Data Item Description DI-MGMT-81334C, "Contract Work Breakdown Structure," to the DCARC within 60 calendar days from contract award.
- Any reporting contractor or subcontractor shall be required to submit the initial report(s) (either the SCDB and the SPPR, or the SCDS, as determined by the reporting requirements described earlier) to the DCARC within 120 calendar days from contract award.
- Any reporting contractor or subcontractor shall be required to submit the interim report(s) (either the SCDB and the SPPR, or the SCDS, as determined by the reporting requirements described earlier) to the DCARC on an annual basis following the submission of the initial report(s).
- Any reporting contractor or subcontractor shall be required to submit the final report(s) (either the SCDB and the SPPR, or the SCDS, as determined by the reporting requirements described earlier) to the DCARC upon contract completion.
- For contracts of duration of one year or less, the reporting contractor or subcontractor shall be required to submit only the initial report(s) and the final report(s).





## **APPENDIX C:**

### **PROPOSED PROGRAM WBS FOR SUSTAINMENT**

This appendix provides our proposed program Work Breakdown Structure, with terms and definitions, for weapon system sustainment. This document was prepared in a format suitable for inclusion as a new appendix to DoD Military Handbook MIL-HDBK-881A, “Work Breakdown Structure for Defense Materiel Items.”

## SUSTAINMENT (OR PRODUCT SUPPORT) WORK BREAKDOWN STRUCTURE AND DEFINITIONS

### SCOPE AND USE

This appendix provides the program Work Breakdown Structure (WBS) and associated definitions for sustainment of defense materiel items. This program WBS may need to be tailored by the sustainment program manager to meet the specific needs of individual programs. In addition, the program manager should work with the appropriate contractor(s) to establish a contract WBS (using Data Item Description DI-MGMT-81334C). The contract WBS is an extension to the program WBS that permits tailoring to the contract statement of work and contract line item structure, as well as the discretionary use of lower levels in the WBS hierarchy for high-cost or high-risk elements.

Work Breakdown Structure Levels		
Level 1	Level 2	Level 3
Sustainment	Operations Support	Unit, Field or Base-Level Services
	Supply Chain Management	Supply Chain Management—Reparables Supply Chain Management—Consumables
	Maintenance	Intermediate-Level Maintenance Depot-Level Maintenance
	Miscellaneous Support	Systems Engineering Program Management Modifications and Retrofit Software Enhancements and Maintenance Technical Publications and Data Updates
	Training Services	Operator Training Maintenance Training Other Training
	Residual Sustainment Investment	Peculiar Support Equipment Common Support Equipment Training Equipment and Course Materials Technical Publications and Data Initial Spares and Repair Parts Operational Site Activation Other Sustainment Investment

## DEFINITIONS

1. Sustainment. All product support activities associated with sustainment of primary systems, as well as associated simulators, training devices, and support equipment.

1.1 Operations Support. Services that directly support local system operations.

1.1.1 Unit, Field or Base-Level Services. Product support services conducted for the customer at the local level (e.g., base-level, unit-level, at-sea or other deployed location). Includes contractor augmentation to system operations organic personnel, customer interface, technical assistance, scheduled or unscheduled maintenance, training, retail logistics, fuel and weapons handling, and other support functions. Typically such services are provided by field service representatives—either full-time on site, or dispatched as needed. Excludes product support services conducted beyond the local level.

1.2 Supply Chain Management. Activities comprising the end-to-end flow of secondary items that are provided to the customer. Includes requirements determination, purchasing and supplier management, materiel or inventory management (including returns processing), repair, storage, transportation, and disposal. Excludes material used by the contractor in performance of maintenance or other services.

1.2.1 Supply Chain Management—Reparables. Supply chain management activities in support of repairable items. A repairable item normally is capable of being restored to acceptable operating condition after failure or damage.

1.2.2 Supply Chain Management—Consumables. Supply chain management activities in support of consumable items. A consumable item normally is expended or used up beyond recovery in the use for which it is designed or intended.

<p><b>NOTE: The Repairable and Consumable Supply Chain Management categories may be combined, as necessary, if the distinction is not provided by the contractor accounting system</b></p>
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1.3 Maintenance. Services devoted to keeping equipment in good operating condition, at either contractor- or government-owned facilities. Examples of maintenance services are equipment calibration, repair, replacement of parts or components, and technical assistance to government maintenance personnel. Includes periodic inspection, prognostic preventative maintenance, and unscheduled corrective maintenance. Excludes maintenance activities conducted as part of Unit, Field or Base-Level Services, or repair of secondary items managed through the contractor supply chain.

1.3.1 Intermediate-Level Maintenance. Limited maintenance services conducted at facilities beyond the local level, such as regional maintenance centers. Includes diagnosis and repair or replacement of parts, components, and assemblies.

1.3.2 Depot-Level Maintenance. Maintenance services conducted at centralized repair depots associated with end-item overhauls and other similar extensive maintenance events. Excludes system software maintenance, which is reported as part of Software Enhancements and Maintenance.

1.4 Miscellaneous Support. Activities that are centrally managed in nature and that are external to the units that operate the fielded systems.

1.4.1 Systems Engineering. Activities that comprise the ongoing technical assessment and management of fielded systems. The technical assessment monitors system performance, as reflected in service use data (e.g., reliability and maintainability data, discrepancy reports, etc.), with respect to system effectiveness, suitability, and safety. Includes technical and engineering functions of a general nature that do not specifically support other WBS elements. Examples include human systems integration, reliability, maintainability, logistics support analysis, value engineering, life of system assessments, and configuration management. Excludes development, testing, and fielding of individual corrective actions or system enhancements, which would be included as part of Modifications and Retrofit, or Software Enhancements and Maintenance, as appropriate.

1.4.2 Program Management. The executive, business, and administrative activities that comprise the overall management of the integrated logistics support effort (including product support integration, if applicable). Includes planning, directing, coordinating, and controlling actions designated to accomplish overall program objectives. Excludes program management activities that are associated with systems engineering or other specific WBS elements.

**NOTE: The Systems Engineering and Program Management elements may be combined, if appropriate**

1.4.3 Modifications and Retrofit. System hardware updates that occur after deployment of a fielded system, that are intended to improve a system's safety, suitability, or performance characteristics. Includes development, testing, production, and installation of hardware modifications.

1.4.4 Software Enhancements and Maintenance. Software changes intended to correct deficiencies found during field usage as well as the addition of new functionality to improve the software's capabilities and performance. Includes deficiency identification, processing of change requests, analysis, code development and modification, testing, migration management, and other software support activities.

1.4.5 Technical Order and Manual Updates. The operation of a depository for technical publications (i.e., technical orders and manuals) related to system operations, maintenance, support, and safety, as well as any other relevant system technical

information needed by the customer. Includes documentation updates and the associated maintenance of the documentation data base. Excludes the initial development and validation of the technical publications, which would be considered part of the Technical Publications and Data WBS element.

1.4.6 Other Miscellaneous Support. Any other product support or sustainment activities not otherwise accounted for. If used, this WBS element should be described.

1.5 Training Services. Activities associated with training of government personnel, either on an individual or collective basis. Includes traditional classroom instruction, distributed learning via interactive courseware, simulator-based training, and embedded training on actual systems or equipment. Excludes nonrecurring investments in the development or procurement of training equipment and course materials, which are included as part of Residual Sustainment Investment (Training Equipment and Course Materials).

1.5.1 Operator Training. Training services associated with system crews or operators.

1.5.2 Maintenance Training. Training services associated with system maintenance personnel.

1.5.3 Other Training. Training services associated with other support personnel, such as security, logistics, communications, etc.

1.6 Residual Sustainment Investment. Activities associated with the development, testing, and procurement of system support that was not funded in prior system development or procurement contracts, and that had been deferred to ongoing sustainment contracts.

1.6.1 Peculiar Support Equipment. Deliverable items and associated software used to support and maintain the system, but not used in support of other DoD systems. Examples include test measurement and diagnostic equipment, and support and handling equipment.

1.6.2 Common Support Equipment. Deliverable items that are used to support and maintain the system, and which also are used in support of other DoD systems. Includes only the incremental quantities of the items needed to support the system.

1.6.3 Training Equipment and Course Materials. Deliverable training equipment (i.e., devices, accessories, or aids) and associated training course curriculum and materials.

1.6.4 Technical Publications and Data. Technical orders and manuals that provide procedures for system operations, maintenance, support, and safety. Also includes other deliverable data, such as engineering documentation and technical data packages, as well as management data and reports. Includes only such effort that could be avoided if the requirement for the data item were eliminated.

1.6.5 Initial Spares and Repair Parts. The deliverable spares and repair parts required for initial stockage to support and maintain newly fielded systems, as well as associated simulators, training devices, and support equipment, during the initial phase of service at all levels of maintenance. Excludes replenishment of the initial stockage, which would be regarded as part of Supply Chain Management.

1.6.6 Operational Site Activation. Preparatory activities necessary to ensure that fielded systems can be accepted, utilized, and supported at each operational site. Includes the coordination and synchronization among the operational user, program office, and system contractor concerning the fielding of new systems and associated initial support, training, and facilities.

1.6.7 Other Sustainment Investment. Any other residual sustainment investment not otherwise accounted for. If used, this WBS element should be described.

## **APPENDIX D:**

### **PROPOSED SCPDR REPORT FORMS AND ASSOCIATED DATA ITEM DESCRIPTIONS**

This appendix provides templates for the proposed plan and reports for the Sustainment Cost and Performance Data Reporting system. The appendix also includes proposed Data Item Descriptions (DIDs) that provide preparation instructions concerning each respective template. The four templates (with associated DIDs) are:

- Sustainment Cost and Performance Data Reporting Plan. The plan is prepared by the program office; it describes what data reports will be provided, when they will be provided, and which contractors and subcontractors will provide them.
- Sustainment Cost Data Breakout. This data report is used to obtain more detailed cost information from the higher dollar value contracts and subcontracts that are subject to sustainment cost reporting.
- Sustainment Performance and Productivity Report. This data report is used to obtain information on sustainment contract performance, productivity, and workload from the higher dollar value contracts and subcontracts that are subject to sustainment performance reporting.
- Sustainment Cost Data Summary. This data report is used to obtain less detailed cost information from the lower dollar value contracts and subcontracts that are subject to sustainment cost reporting.

Examples of each of these templates are presented in the pages that follow, each followed immediately with instructions on how to complete each item in the template presented.

SUSTAINMENT COST AND PERFORMANCE DATA REPORTING PLAN									
1. PROGRAM NAME					2. PRIME MISSION PRODUCT DESIGNATION				
3. SUBMISSION TYPE <input type="checkbox"/> DRAFT <input type="checkbox"/> FINAL				4a. SUBMISSION DATE (YYYYMMDD)			4b. RESUBMISSION NUMBER		
5a. POINT OF CONTACT (POC) NAME AND ADDRESS (Include ZIP Code)				5b. TELEPHONE NUMBER (Include Area Code)		5c. FAX NUMBER (Include Area Code)		5d. E-MAIL ADDRESS	
				6. PREPARING ORGANIZATION		7. APPROVED PLAN NUMBER (DCARC USE ONLY)			
8a. CONTRACT NAME	8b. CONTRACTOR TYPE	8c. CONTRACTOR NAME	8d. LOCATION	8e. AWARD DATE (YYYYMMDD)	8f. CONTRACT NUMBER	9. REPORTS REQUIRED (X if applicable)			
						a. CWBS & DICTIONARY	b. SCDS FORM	c. SCDB FORM	d. SPPR FORM

PREVIOUS EDITION IS OBSOLETE



10. SCPDR PLANNED SUBMISSION DATES				
a. SUBMISSION NO.	b. FORM(S)	c. EVENT (DATE)	d. AS OF DATE (YYYYMMDD)	e. DUE DATE (YYYYMMDD)
11. REMARKS				

## INSTRUCTIONS FOR COMPLETING SUSTAINMENT COST AND PERFORMANCE DATA REPORTING PLAN

The following paragraphs describe how to complete the Sustainment Cost and Performance Data Reporting (SCPDR) plan. The SCPDR plan is used to describe the planned cost reporting for each sustainment program, and the associated contract(s) and subcontracts(s) that meet the reporting criteria.

### General Instructions

The SCPDR plan will describe what data are needed, when the data are needed, and who will provide the data. The plan is to be submitted by a responsible program office or similar entity that is responsible for the specific sustainment program that is to be reported. The submitting organization will use the Microsoft Excel template for the SCPDR plan, following the guidance in these instructions.

### Specific Instructions for Individual Data Elements

Item 1. Program Name. Enter the complete name for the program that is being supported. For current acquisition programs, enter the name of the program used in the Defense Acquisition Executive Summary (DAES) report, if applicable. For legacy systems, enter the name of the program used in the Defense Acquisition Executive Summary-Sustainment (DAES-S) report, if applicable. If a contract supports multiple programs, provide an explanation in Item 11 (“Remarks”).

Item 2. Prime Mission Product Designation. Enter the official military designation or abbreviation for the program being addressed. For example, enter “F-35” for the Joint Strike Fighter.

Item 3. Submission Type. Check the appropriate block to indicate whether the SCPDR plan is the draft or final plan.

Item 4a. Submission Date. Enter the date when the preparing organization is submitting the plan. Enter the appropriate numeric date as month/day/year. The Excel template will display the date as YYYYMMDD. For example, the date 12/31/2004 will be displayed as 20041231.

Item 4b. Resubmission Number. Enter “0” (zero) for the original submission of the plan. In the event that the plan is revised and resubmitted, enter the resubmission number starting with “1” for the first resubmission, “2” for the second resubmission, and so forth. Explain the reason for any resubmission in Item 11 (“Remarks”).

Items 5a through 5d. Point of Contact (POC) Information. Enter the relevant information about the POC as follows:

- Item 5a—name, street address, city, state, zip code

- Item 5b—telephone number, including area code
- Item 5c—fax number, including area code
- Item 5d—e-mail address

Item 6. Preparing Organization. Enter the name and office symbol for the organization preparing the SCPDR plan. Typically, this will be an element of the system program office.

Item 7. Approved Plan Number. Leave blank and the Defense Cost and Resource Center (DCARC) will make the appropriate entry.

Item 8a. Contract Name. Enter a fully descriptive name of each contract or subcontract effort subject to sustainment cost reporting. Begin with the name of the end item, system, subsystem, or component being supported, followed with a brief title or description of the nature of the contractor support. Examples are:

- C-17 Flexible Sustainment
- BMDS Radar Contractor Logistics Support
- JSTARS Total System Support Responsibility
- Apache Prime Vendor Support
- AE 1170C Engine Power By The Hour
- Stryker Performance Based Logistics

Item 8b. Contractor Type. Make a single entry (using an “X”) for one of the following: Prime, Associate, or Subcontractor. Use “Prime” for a contract with the government that provides broad product support functions. Use “Associate” for a contract with the government for support of a single subsystem (e.g., radar) or that provides a specialized support function (e.g., training services). Use “Subcontractor” for a contract between the prime contractor and a subordinate company or other entity.

Item 8c. Contractor Name. For each row, enter the name of the responsible contractor or direct reporting subcontractor. Enter “TBD” if the name is not yet known.

Item 8d. Location. Enter the city and state for the location of the responsible contractor or direct reporting subcontractor.

Item 8e. Award Date. For each row, enter the date of the anticipated contract or subcontract award. Enter the appropriate numeric date as month/day/year. The Excel template will display the date as YYYYMMDD. For example, the date 12/31/2004 will be displayed as 20041231.

Item 8f. Contract Number. For each row, enter the appropriate contract or subcontract number, if known. Enter “TBD” if the contract number is not yet known.

Item 9. Reports Required. For each row, indicate which of the reports listed will be required. Enter an X for each report that will be required; otherwise, leave blank.

Item 9a. CWBS and Dictionary. Enter an X in this column if the contractor or subcontractor will provide a Contractor Work Breakdown Structure (CWBS) and associated data dictionary. Note that the CWBS is required for any contract or subcontract that is providing either of the SCDS or SCDB reports.

Item 9b. SCDS Form. Enter an X in this column if the contractor or subcontractor will provide a Sustainment Cost Data Summary (SCDS).

Item 9c. SCDB Form. Enter an X if the contractor or subcontractor will provide a Sustainment Cost Data Breakout (SCDB). The SCDB report is a more detailed version of the SCDS report. Normally, each contract or subcontract will provide either the SCDS or the SCDB, but not both.

Item 9d. SPPR Form. Enter an X if the contractor or subcontractor will provide a Sustainment Performance and Productivity Report (SPPR). Normally, each contract or subcontract will provide a SPPR when the SCDB is required.

Item 10. SCPDR Planned Submission Dates. This section lists the planned sequence of SCPDR forms for each contract and subcontract subject to sustainment cost reporting.

Item 10a. Submission Number. Each submission will be enumerated using a prefix-suffix format. The prefix will be a letter (A, B, C, etc.) and will identify the unique provider of the reported data. The letter A will be used for the government organization submitting the draft and final SCPDR plan. The letters B and beyond will be used for each contract or subcontract. The suffix will be a number (1, 2, etc.) and will list the individual reports for each contract or subcontract, in the order of the submission date. Leave a blank row between each series of contract or subcontract submissions.

Item 10b. Form(s). Enter the appropriate SCPDR form that makes up the submission. For the SCDS, SCDB, and SPPR forms, the entry should describe the report as initial, interim, or final. Leave a blank row between each series of contract or subcontract submissions. Also, enter the Contractor Name (from Item 8c) in underlined format at the top of each block of submissions.

Item 10c. Event (Date). Enter the event or time period corresponding to the SCPDR submission. Typical events would be release of the draft Request for Proposal (RFP), contract award, annual reporting, or contract completion. Provide the date associated with the event in parentheses using a month-year format. Leave a blank row between each series of contract or subcontract submissions.

Item 10d. As Of Date. Enter the planned “as of date” for the data submission. This represents the cutoff date from the contractor’s accounting system that

describes the data in the report. Enter the appropriate numeric date as month/day/year. The Excel template will display the date as YYYYMMDD. For example, the date 12/31/2004 will be displayed as 20041231. Leave a blank row between each series of contract or subcontract submissions.

Item 10e. Due Date. Enter the due date for the planned submission. For example, the due date for the draft SCPDR plan would be 60 days prior to the release of the draft RFP. Enter the appropriate numeric date as month/day/year. The Excel template will display the date as YYYYMMDD. For example, the date 12/31/2004 will be displayed as 20041231. Leave a blank row between each series of contract or subcontract submissions.

Item 11. Remarks. Enter any pertinent remarks about the SCPDR plan that help explain or clarify any of the items 1 through 10. Use continuation sheets as necessary.

#### SUSTAINMENT COST DATA BREAKOUT (PART 1)

<b>1. PROGRAM</b> a. PROGRAM NAME b. PMP DESIGNATION		<b>2. CONTRACT NAME</b>		<b>3. CONTRACTOR TYPE</b> (X one) <input type="checkbox"/> PRIME <input type="checkbox"/> ASSOCIATE <input type="checkbox"/> DIRECT-REPORTING SUBCONTRACTOR		<b>4. NAME/ADDRESS</b> (Include ZIP Code)		<b>5. APPROVED PLAN NUMBER</b> (DCARC USE ONLY)	
<b>6. CUSTOMER</b> (DIRECT-REPORTING SUBCONTRACTOR USE ONLY)		<b>7. CONTRACT TYPE</b>		<b>8. CONTRACT PRICE</b>		<b>9. CONTRACT CEILING</b>		<b>10. TYPE ACTION</b> a. CONTRACT NO.: b. LATEST MODIFICATION:	
<b>11. PERIOD OF CONTRACT PERFORMANCE</b> a. AWARD DATE (YYYYMMDD) b. COMPLETION DATE (YYYYMMDD)		<b>12. APPROPRIATION</b> <input type="checkbox"/> ROT&E <input type="checkbox"/> PROCUREMENT <input type="checkbox"/> O&M <input type="checkbox"/> COWCF		<b>13. REPORT CYCLE</b> <input type="checkbox"/> INITIAL <input type="checkbox"/> INTERIM <input type="checkbox"/> FINAL		<b>14. SUBMISSION NUMBER</b>		<b>15. RESUBMISSION NUMBER</b>	
<b>17. POC NAME</b> (Last, First, Middle Initial)		<b>18. DEPARTMENT</b>		<b>19. TELEPHONE NUMBER</b> (Include Area Code)		<b>20. EMAIL ADDRESS</b>		<b>21. DATE PREPARED</b> (YYYYMMDD)	
<b>16. REPORTING PERIOD</b> a. START DATE (YYYYMMDD) b. END DATE (YYYYMMDD)									

## PART 1. COSTS THIS REPORTING PERIOD

[illegible]

22. REMARKS

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#### SUSTAINMENT COST DATA BREAKOUT (PART 2)

[illegible]

### SUSTAINMENT COST DATA BREAKOUT (PART 3)

<b>1. PROGRAM</b> a. PROGRAM NAME b. PMP DESIGNATION		<b>2. CONTRACT NAME</b>		<b>3. CONTRACTOR TYPE</b> (X one) <input type="checkbox"/> PRIME <input type="checkbox"/> ASSOCIATE <input type="checkbox"/> DIRECT-REPORTING SUBCONTRACTOR		<b>4. NAME/ADDRESS</b> (Include ZIP Code)		<b>5. APPROVED PLAN NUMBER</b> (DCARC USE ONLY)		
<b>6. CUSTOMER</b> (DIRECT-REPORTING SUBCONTRACTOR USE ONLY)		<b>7. CONTRACT TYPE</b>		<b>8. CONTRACT PRICE</b>		<b>9. CONTRACT CEILING</b>		<b>10. TYPE ACTION</b> a. CONTRACT NO.: b. LATEST MODIFICATION: c. SOLICITATION NO.:		
<b>11. PERIOD OF CONTRACT PERFORMANCE</b> a. AWARD DATE (YYYYMMDD) b. COMPLETION DATE (YYYYMMDD)		<b>12. APPROPRIATION</b> <input type="checkbox"/> ROT&E <input type="checkbox"/> PROCUREMENT <input type="checkbox"/> O&M <input type="checkbox"/> DWCF		<b>13. REPORT CYCLE</b> <input type="checkbox"/> INITIAL <input type="checkbox"/> INTERIM <input type="checkbox"/> FINAL		<b>14. SUBMISSION NUMBER</b>		<b>15. RESUBMISSION NUMBER</b>		
<b>17. POC NAME</b> (Last, First, Middle Initial)		<b>18. DEPARTMENT</b>		<b>19. TELEPHONE NUMBER</b> (Include Area Code)		<b>20. EMAIL ADDRESS</b>		<b>16. REPORTING PERIOD</b> a. START DATE (YYYYMMDD) b. END DATE (YYYYMMDD) <b>21. DATE PREPARED</b> (YYYYMMDD)		
<b>PART 3. ESTIMATED COSTS AT COMPLETION</b>										
WBS ELEMENT CODE  A	WBS REPORTING ELEMENTS  B	DIRECT LABOR		DIRECT MATERIAL				OTHER DIRECT	INDIRECT	TOTAL
		HOURS C	DOLLARS D	RAW MATERIAL E	PURCHASED PARTS F	INTERDISCIPLINARY WORK TRANSFERS G	SUBCONTRACTS PURCHASED EQUIPMENT H	SUBCONTRACTS PURCHASED SERVICES I	OVERHEAD J	K
SUBTOTAL DIRECT PLUS OVERHEAD										
GENERAL & ADMINISTRATIVE										
UNDISTRIBUTED BUDGET										
MANAGEMENT RESERVE										
COST OF MONEY										
TOTAL COST										
PROFIT/LOSS OR FEE										
TOTAL PRICE										
<b>22. REMARKS</b>										

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## INSTRUCTIONS FOR COMPLETING SUSTAINMENT COST DATA BREAKOUT

The following paragraphs describe how to complete the individual data elements of the Sustainment Cost Data Breakout (SCDB). The SCDB is used by contractors to provide a report of actual cost experience over the appropriate reporting periods for major sustainment contracts. The SCDB is submitted by the responsible contractor or subcontractor using the Microsoft Excel template for the breakout, following the guidance in these instructions.

### General Instructions

The SCDB will provide detailed cost data broken down following the hierarchy of the approved contract Work Breakdown Structure (WBS). For each WBS element, the costs are further broken down by direct labor, categories of direct material, and overhead. In addition, contract-wide costs (e.g., General & Administrative, profit) are to be provided separately. **All reported costs and hours are to be provided in thousands.**

The SCDB consists of three parts; each part corresponds to a distinct time interval. Part 1 is used for the current reporting period, Part 2 is used for the cumulative contract experience to date, and Part 3 is used for the total estimated costs at completion of the entire contract.

### Specific Instructions for Basic Contract Information (Parts 1, 2, and 3)

Item 1a. Program Name. Enter the complete name for the program that is being supported. For current acquisition programs, enter the name of the program used in the Defense Acquisition Executive Summary (DAES) report, if applicable. For legacy systems, enter the name of the program used in the Defense Acquisition Executive Summary-Sustainment (DAES-S) report, if applicable. If the contract supports multiple programs, provide an explanation in Item 22 (“Remarks”).

Item 1b. Prime Mission Product (PMP) Designation. Enter the official military designation or abbreviation for the program being addressed. For example, enter “F-35” for the Joint Strike Fighter.

Item 2. Contract Name. Enter a fully descriptive name of each contract or subcontract effort subject to sustainment cost reporting. Begin with the name of the end item, system, subsystem, or component being supported, followed with a brief title or description of the nature of the contractor support. Examples are:

- C-17 Flexible Sustainment
- BMDS Radar Contractor Logistics Support
- JSTARS Total System Support Responsibility
- Apache Prime Vendor Support

- AE 1170C Engine Power By The Hour
- Stryker Performance Based Logistics

Item 3. Contractor Type. Make a single entry (using an “X”) for one of the following: Prime, Associate, or Subcontractor. Use “Prime” for a contract with the government that provides broad product support functions. Use “Associate” for a contract with the government for support of a single subsystem (e.g., radar) or that provides a specialized support function (e.g., training services). Use “Subcontractor” for a contract between the prime and a subordinate company or other entity.

Item 4. Name/Address. Enter the name, division (if applicable), and address (including ZIP code) of the reporting (prime or associate) contractor or direct-reporting subcontractor.

Item 5. Approved Plan Number (DCARC Use Only). Leave blank and the Defense Cost and Resource Center (DCARC) will make the appropriate entry.

Item 6. Customer (Direct-Reporting Subcontractor Use Only). If you are a direct-reporting subcontractor, enter the name of the prime contractor for whom the work on the subcontract is being performed. Otherwise, leave blank.

Item 7. Contract Type. Enter the contract type code for the contract for which data are being reported. The codes for the most common contract types that are included in the Federal Acquisition Regulation (FAR) are listed in the table below.

Contract/Order Type Code	
FAR Contract Types	Contract Type Code
Cost Reimbursement Contracts	
Cost Sharing	CS
Cost Plus Award Fee	CPAF
Cost Plus Fixed Fee	CPFF
Cost Plus Incentive Fee	CPIF
Cost Plus Incentive Fee (With Performance Incentives)	CPIF(PI)
Fixed Price Contracts	
Firm Fixed Price	FFP
Fixed Price Incentive, Firm Target	FPIF
Fixed Price Incentive, Successive Targets	FPIST
Fixed Price Incentive, Successive Targets (With Performance Incentive)	FPIST(PI)
Fixed Price Incentive Firm Target (With Performance Incentive)	FPIFT(PI)
Fixed Price Award Fee	FPAF
Fixed Price with Economic Price Adjustment	FP/EPA
Fixed Price with Prospective Price Redetermination	FP/PPR
Fixed Ceiling Price with Retroactive Price Redetermination	FCP/RPR
Firm Fixed Price, Level of Effort Term	FFP/LOET
Letter Contract and Unfixed Contractual Action (UCA)	LC
Other Contracts	OC
Contracts with Multiple Contract Types by Contract Line Item Numbers (CLINs)	MC

For Time and Material, Labor-Hour, Letter Contracts, Indefinite Delivery, Basic Ordering Agreements, and flexibly priced contracts, select the primary contract type against which the majority of orders are placed. If the contract type is an “Other Contract,” enter OC in Item 7 and in Item 22 (“Remarks”), followed by the complete name of the contract type in Item 22. If the contract includes multiple Contract Line Item Numbers (CLINs) of varying contract types, enter “MC” in Item 7 and in Item 22, followed by a description of the contracting arrangement in Item 22.

Item 8. Contract Price. Enter the total contract price value through the most recent contract modification consistent with Item 16b (“Reporting Period End Date”).

- For fixed price contracts without incentives, enter the total negotiated cost plus profit for work to be performed.
- For flexibly priced contracts (e.g., Indefinite Delivery or Basic Ordering Agreements), enter the total estimated value of all potential orders.
- For Letter Contracts and Undefinitized Contractual Actions, enter the Not-To-Exceed ceiling.
- For all other types of contracts, enter the negotiated target cost plus target profit. Explain any incentive-sharing arrangements (e.g., 70/30 share ratio) in Item 22 (“Remarks”).

Item 9. Contract Ceiling. Enter the amount of the contract ceiling, if applicable. Otherwise, enter “N/A” for “not applicable.”

Item 10. Type Action. For prime or associate contracts with the government, enter the assigned contract number and the number of the latest contract modification. For subcontracts, enter the equivalent identifying information that has been assigned by the prime contractor. If the contract being reported on was in response to a solicitation (as posted on the Federal Business Opportunities Web site), enter the solicitation number. Otherwise, enter “N/A” for “not applicable.”

Item 11. Period of Contract Performance. Enter the start and end dates related to the period of performance for the entire contract. The start date is the date of the initial contract award, and the end date is the estimated date of contract completion (i.e., when the contract is entirely or substantially complete). Enter the appropriate numeric date as month/day/year. The Excel template will display the date as YYYYMMDD. For example, the date 12/31/2004 will be displayed as 20041231.

Item 12. Appropriation. Designate (with an “X”) one or more of the appropriate box(es) to indicate the type of appropriations used by the government to fund the contract. If multiple boxes are checked, provide the percentage breakout in Item 22 (“Remarks”). For subcontracts, leave this item blank. The types of appropriations are:

- Research, Development, Test and Evaluation (RDT&E)
- Procurement

- Operations and Maintenance (O&M)
- Defense Working Capital Fund (DWCF)

Item 13. Report Cycle. Designate (with an “X”) one of the following: “Initial,” “Interim,” or “Final,” as appropriate. The initial SCDB is provided within 120 days from contract award, the interim SCDBs are provided annually thereafter, and the final SCDB is provided upon contract completion. For contracts of duration one year or less, there would be only an initial report and a final report.

Item 14. Submission Number. Enter the contract submission number, as provided in Item 10a of the most recently approved Sustainment Cost and Performance Data Reporting Plan.

Item 15. Resubmission Number. Enter “0” (zero) for the original submission of the report. In the event that the report is revised and resubmitted, enter the resubmission number starting with “1” for the first resubmission, “2” for the second resubmission, and so forth. Explain the reason for the resubmission in Item 22 (“Remarks”).

Item 16. Reporting Period. Enter the start and end dates for the time period that is being reported. Enter the appropriate numeric date as month/day/year. The Excel template will display the date as YYYYMMDD. For example, the date 12/31/2004 will be displayed as 20041231.

Items 17 through 20. Point of Contact (POC) Information. Enter the following information for the person to be contacted for answers to any questions about the report being submitted.

- Item 17. Last Name, First Name, Middle Initial
- Item 18. Department
- Item 19. Telephone Number (including area code)
- Item 20. E-Mail Address

Item 21. Date Prepared. Enter the appropriate numeric data for the date that the report was prepared. Enter the appropriate numeric date as month/day/year. The Excel template will display the date as YYYYMMDD. For example, the date 12/31/2004 will be displayed as 20041231.

Item 22. Remarks. Provide any relevant additional explanation or other information that would be useful in the interpretation of the data provided in this report. In particular, describe any significant changes to the contract scope or terms and conditions, or any significant changes to the contractor’s accounting system.

Specific Instructions for WBS Reported Data (Parts 1, 2, and 3)

Column A. WBS Element Code. Enter the Work Breakdown Structure code for each WBS reporting element being reported in Column B. Each code should match the code

submitted in the approved contract WBS. The preferred convention is to use a hierarchal numeric structure beginning with 1.0 for the level 1 contract WBS element.

Column B. WBS Reporting Elements. Enter the WBS nomenclature for each reporting element. The nomenclature should agree with the nomenclature used in the approved contract WBS.

Column C. Direct Labor Hours. For each WBS element being reported, enter the direct labor hours (in thousands) for the appropriate reporting periods (associated with Parts 1, 2, and 3). Direct labor hours are hours that can be specifically and consistently assigned to a final cost objective (e.g., a particular contract).

Column D. Direct Labor Dollars. For each WBS element being reported, enter the direct labor dollar cost (in thousands) for the appropriate reporting periods. Direct labor cost is the cost of labor that can be specifically and consistently assigned to a final cost objective (e.g., a particular contract).

Columns E-H Direct Material. For each WBS element being reported, enter the direct material costs (in thousands), by category of material, for the appropriate reporting periods. A direct material cost is any cost that can be specifically and consistently assigned to a final cost objective (e.g., a particular contract). The following definitions are provided as a guide:

- Raw Material. Crude, semi-fabricated or partially processed materials or components that have not yet been made into a definite functional item or configuration.
- Purchased Parts. Items that are discrete components used in an upper-level assembly. Purchased parts are distinguished from purchased equipment by their relatively lower cost and complexity.
- Interdivision Work Transfers. A contractual arrangement conducted by two entities (divisions, subdivisions, subsidiaries, or affiliates) within the same parent company. Also known as Inter Component Work Order or Inter Work Transfer.
- Purchased Equipment. Assembled items and subassemblies intended to be incorporated into a finished product. Purchased equipment is distinguished from purchased parts by its relatively higher cost and complexity.

Column I. Other Direct Subcontractor Purchased Services. For each WBS element being reported, enter the cost (in thousands) for subcontracts of purchased services for the appropriate reporting periods. Such subcontracts would be any subcontracts where the primary purpose is to perform an identifiable task (rather than furnish an end-item or other material item). Such tasks might include any of the following:

- Maintenance of equipment
- Maintenance of facilities or other real property
- Base operations services
- Advisory and assistance services
- Communication services

- Transportation services
- Other services

Column J. Indirect Overhead. For each WBS element being reported, enter the costs (in thousands) for allocated overhead expenses for the appropriate reporting periods. Overhead activities (such as supervision, or facilities maintenance and depreciation) can be related to specific categories of operations or functions, but cannot be assigned directly to specific contracts. Examples of overhead categories or pools might include the following:

- Maintenance overhead
- Engineering overhead
- Field services overhead
- Material overhead

Column K. Total. For each WBS element being reported, enter the sum of columns D through J for the appropriate reporting periods.

#### Specific Instructions for Overall Contract Reported Data

Note that the remaining summary entries apply only to Column K. Enter the information for each of the appropriate reporting periods (associated with Parts 1, 2, and 3).

Subtotal (Direct Plus Overhead). Enter the total cost provided at the highest level WBS reporting element (e.g., 1.0 Sustainment) in Column K.

General & Administrative. Enter the total cost (in thousands) for G&A expenses that are allocated to the contract. G&A refers to indirect expenses related to the overall management and administration of the contractor's business unit that cannot be accurately assigned to overhead areas (maintenance, material, and so on).

Undistributed Budget. Enter the total amount (in thousands) for that portion of the contract expenses that are applicable to the program effort but that have not yet been allocated to control account budgets.

Management Reserve. Enter the total amount (in thousands) for that portion of the total allocated budget that has been held back as a contingency for management control and risk purposes at the total contract level (rather than designated for the accomplishment of specific tasks).

Cost of Money. Enter the total amount (in thousands) for the facilities capital cost of money associated with the contract. This cost is an imputed cost determined by applying a cost-of-money rate to facilities capital employed in contract performance according to cost accounting standards.

Total Cost. Enter the total contractor costs (in thousands). This is the sum of subtotal (direct plus overhead), G&A, undistributed budget, management reserve, and cost of money.

Profit/Loss or Fee. Enter the total (in thousands) of all profit/loss or fee according to the terms of the contract (e.g., incentive formula). Profit is the excess of revenues over expenses in fixed-price contracts. Loss is the excess of expenses over revenue that contain limited government liability (such as fixed-price contracts or cost-plus contracts with cost ceilings). In special cost-reimbursement pricing arrangements, fee is a form of profit representing an agreed-to amount beyond the initial estimate of costs. Fee may be fixed at the outset of contract performance (such as cost-plus-fixed-fee arrangements), or may vary during performance (such as cost-plus-incentive-fee arrangements).

Total Price. Enter the total price for the contract, which is total cost plus the profit/loss or fee.

SUSTAINMENT PERFORMANCE AND PRODUCTIVITY REPORT										
1. PROGRAM a. PROGRAM NAME b. PMP DESIGNATION		2. CONTRACT NAME		3. CONTRACTOR TYPE (X one) <input type="checkbox"/> PRIME <input type="checkbox"/> ASSOCIATE <input type="checkbox"/> DIRECT-REPORTING SUBCONTRACTOR		4. NAME/ADDRESS (include ZIP Code)		5. APPROVED PLAN NUMBER (DCARC USE ONLY)		
6. CUSTOMER (DIRECT-REPORTING SUBCONTRACTOR USE ONLY)		7. CONTRACT TYPE	8. CONTRACT PRICE	9. CONTRACT CEILING		10. TYPE ACTION a. CONTRACT NO. b. LATEST MODIFICATION c. SOLICITATION NO.				
11. PERIOD OF CONTRACT PERFORMANCE a. AWARD DATE (YYYYMMDD) b. COMPLETION DATE (YYYYMMDD)		12. APPROPRIATION <input type="checkbox"/> RDT&E <input type="checkbox"/> PROCUREMENT <input type="checkbox"/> O&M <input type="checkbox"/> DWCF		13. REPORT CYCLE <input type="checkbox"/> INITIAL <input type="checkbox"/> INTERIM <input type="checkbox"/> FINAL		14. SUBMISSION NUMBER		15. RESUBMISSION NUMBER	16. REPORTING PERIOD a. START DATE (YYYYMMDD) b. END DATE (YYYYMMDD)	
17. POC NAME (Last, First, Middle Initial)		18. DEPARTMENT				20. EMAIL ADDRESS		21. DATE PREPARED (YYYYMMDD)		
PERFORMANCE AND PRODUCTIVITY PARAMETERS		EXPERIENCE DURING REPORTING PERIOD		CUMULATIVE EXPERIENCE TO DATE		PROJECTION AT COMPLETION				
CATEGORY A	PARAMETER B		GOAL C	ACTUAL D		GOAL E	ACTUAL F		GOAL G	FORECAST H
22. REMARKS										



## INSTRUCTIONS FOR COMPLETING SUSTAINMENT PERFORMANCE AND PRODUCTIVITY REPORT

The following paragraphs describe how to complete the individual data elements of the Sustainment Performance and Productivity Report (SPPR). The SPPR is used by contractors to submit data on contract performance, productivity, and workload over the appropriate reporting periods for major sustainment contracts.

### General Instructions

The SPPR provides metrics and other data associated with sustainment contract performance. These instructions offer a general guide as to the type of data that should be provided. However, the parameters associated with sustainment contracts may vary widely across different programs, so the choice of parameters used in the SPPR should be tailored to individual contract scope, terms, and conditions.

The SPPR provides results for three reporting periods: the current reporting period, the cumulative experience to date, and the total performance at completion of the entire contract.

### Specific Instructions for Basic Contract Information

Item 1a. Program Name. Enter the complete name for the program that is being supported. For current acquisition programs, enter the name of the program used in the Defense Acquisition Executive Summary (DAES) report, if applicable. For legacy systems, enter the name of the program used in the Defense Acquisition Executive Summary-Sustainment (DAES-S) report, if applicable. If the contract supports multiple programs, provide an explanation in Item 22 (“Remarks”).

Item 1b. Prime Mission Product (PMP) Designation. Enter the official military designation or abbreviation for the program being addressed. For example, enter “F-35” for the Joint Strike Fighter.

Item 2. Contract Name. Enter a fully descriptive name of each contract or subcontract effort subject to sustainment cost reporting. Begin with the name of the end item, system, subsystem, or component being supported, followed with a brief title or description of the nature of the contractor support. Examples are:

- C-17 Flexible Sustainment
- BMDS Radar Contractor Logistics Support
- JSTARS Total System Support Responsibility
- Apache Prime Vendor Support
- AE 1170C Engine Power By The Hour
- Stryker Performance Based Logistics

Item 3. Contractor Type. Make a single entry (using an “X”) for one of the following: Prime, Associate, or Subcontractor. Use “Prime” for a contract with the government that provides broad product support functions. Use “Associate” for a contract with the government for support of a single subsystem (e.g., radar) or that provides a specialized support function (e.g., training services). Use “Subcontractor” for a contract between the prime and a subordinate company or other entity.

Item 4. Name/Address. Enter the name, division (if applicable), and address (including ZIP code) of the reporting (prime or associate) contractor or direct-reporting subcontractor.

Item 5. Approved Plan Number. Leave blank and the Defense Cost and Resource Center (DCARC) will make the appropriate entry.

Item 6. Customer (Direct-Reporting Subcontractor Use Only). If you are a direct-reporting subcontractor, enter the name of the prime contractor for whom the work on the subcontract is being performed. Otherwise, leave blank.

Item 7. Contract Type. Enter the contract type code for the contract for which data are being reported. The codes for the most common contract types that are included in the Federal Acquisition Regulation (FAR) are listed in the table below.

Contract/Order Type Code	
FAR Contract Types	Contract Type Code
Cost Reimbursement Contracts	
Cost Sharing	CS
Cost Plus Award Fee	CPAF
Cost Plus Fixed Fee	CPFF
Cost Plus Incentive Fee	CPIF
Cost Plus Incentive Fee (With Performance Incentives)	CPIF(PI)
Fixed Price Contracts	
Firm Fixed Price	FFP
Fixed Price Incentive, Firm Target	FPIF
Fixed Price Incentive, Successive Targets	FPIST
Fixed Price Incentive, Successive Targets (With Performance Incentive)	FPIST(PI)
Fixed Price Incentive Firm Target (With Performance Incentive)	FPIFT(PI)
Fixed Price Award Fee	FPAF
Fixed Price with Economic Price Adjustment	FP/EPA
Fixed Price with Prospective Price Redetermination	FP/PPR
Fixed Ceiling Price with Retroactive Price Redetermination	FCP/RPR
Firm Fixed Price, Level of Effort Term	FFP/LOET
Letter Contract and Undefined Contractual Action (UCA)	LC
Other Contracts	OC
Contracts with Multiple Contract Types by Contract Line Item Numbers (CLINs)	MC

For Time and Material, Labor-Hour, Letter Contracts, Indefinite Delivery, Basic Ordering Agreements, and flexibly priced contracts, select the primary contract type against which the majority of orders are placed. If the contract type is an “Other

Contract,” enter OC in Item 7 and in Item 22 (“Remarks”), followed by the complete name of the contract type in Item 22. If the contract includes multiple Contract Line Item Numbers (CLINs) of varying contract types, enter “MC” in Item 7 and in Item 22, followed by a description of the contracting arrangement in Item 22.

Item 8. Contract Price. Enter the total contract price value through the most recent contract modification consistent with Item 16b (“Reporting Period End Date”).

- For fixed price contracts without incentives, enter the total negotiated cost plus profit for work to be performed.
- For flexibly priced contracts (e.g., Indefinite Delivery or Basic Ordering Agreements), enter the total estimated value of all potential orders.
- For Letter Contracts and Undefined Contractual Actions, enter the Not-To-Exceed ceiling.
- For all other types of contracts, enter the negotiated target cost plus target profit. Explain any incentive-sharing arrangements (e.g., 70/30 share ratio) in Item 22 (“Remarks”).

Item 9. Contract Ceiling. Enter the amount of the contract ceiling, if applicable. Otherwise, enter “N/A” for “not applicable.”

Item 10. Type Action. For prime or associate contracts with the government, enter the assigned contract number and the number of the latest contract modification. For subcontracts, enter the equivalent identifying information that has been assigned by the prime contractor. If the contract being reported on was in response to a solicitation (as posted on the Federal Business Opportunities Web site), enter the solicitation number. Otherwise, enter “N/A” for “not applicable.”

Item 11. Period of Contract Performance. Enter the start and end dates related to the period of performance for the entire contract. The start date is the date of the initial contract award, and the end date is the estimated date of contract completion (i.e., when the contract is entirely or substantially complete). Enter the appropriate numeric date as month/day/year. The Excel template will display the date as YYYYMMDD. For example, the date 12/31/2004 will be displayed as 20041231.

Item 12. Appropriation. Designate (with an “X”) one or more of the appropriate box(es) to indicate the type of appropriations used by the government to fund the contract. If multiple boxes are checked, provide the percentage breakout in Item 22 (“Remarks”). For subcontracts, leave this item blank. The types of appropriations are:

- Research, Development, Test and Evaluation (RDT&E)
- Procurement
- Operations and Maintenance (O&M)
- Defense Working Capital Fund (DWCF)

Item 13. Report Cycle. Designate (with an “X”) one of the following: “Initial,” “Interim,” or “Final,” as appropriate. The initial SPPR is provided within 120 days from contract award, the interim SPPRs are provided annually thereafter, and the final SPPR is provided upon contract completion. For contracts of duration one year or less, there would be only an initial report and a final report.

Item 14. Submission Number. Enter the contract submission number, as provided in Item 10a of the most recently approved Sustainment Cost and Performance Data Reporting Plan.

Item 15. Resubmission Number. Enter “0” (zero) for the original submission of the report. In the event that the report is revised and resubmitted, enter the resubmission number starting with “1” for the first resubmission, “2” for the second resubmission, and so forth. Explain the reason for the resubmission in Item 22 (“Remarks”).

Item 16. Reporting Period. Enter the start and end dates for the time period that is being reported. Enter the appropriate numeric date as month/day/year. The Excel template will display the date as YYYYMMDD. For example, the date 12/31/2004 will be displayed as 20041231.

Items 17 through 20. Point of Contact (POC) Information. Enter the following information for the person to be contacted for answers to any questions about the report being submitted.

- Item 17. Last Name, First Name, Middle Initial
- Item 18. Department.
- Item 19. Telephone Number (including area code)
- Item 20. E-Mail Address

Item 21. Date Prepared. Enter the appropriate numeric data for the date that the report was prepared. Enter the appropriate numeric date as month/day/year. The Excel template will display the date as YYYYMMDD. For example, the date 12/31/2004 will be displayed as 20041231.

Item 22. Remarks. Provide any relevant additional explanation or other information that would be useful in the interpretation of the data provided in this report. In particular, provide contract-specific definitions for the performance and productivity parameters that are used in the report. In addition, describe any significant changes to the contract scope or terms and conditions, or any significant changes to the contractor’s accounting system.

#### General Guidance for Performance and Productivity Parameters

The various performance, productivity, workload, and other parameters should be grouped in logical categories, where each category contains a set of related parameters. Examples of typical categories include operations, availability, maintenance, supply,

software, training, and logistics footprint. Other categories may be used as appropriate. Not all of these categories may apply to a specific contract.

For Performance Based Logistics (PBL) contracts, the performance categories and parameters that are displayed should correspond to actual performance specifications or other provisions reflected in the contract terms and conditions. For each parameter, report the actual results over the reporting period relative to contract requirements or goals, if applicable. For Interim Contractor Support (ICS) or Contractor Logistics Support (CLS) contracts without performance-based provisions, the SPPR is used only for more limited reporting narrowly focused on operations workload such as the number and operating tempo of the systems being supported, number of bases or units being supported, number of major maintenance overhaul events, or training workload.

#### Specific Guidance for Performance Categories and Parameters

“Operations” refers to the number of end-items being supported by the contractor over the appropriate reporting period. Other operations parameters of interest might be the optempo (e.g., flying hours, steaming days, or vehicle miles) or the number of bases, sites, or deployment locations being supported.

“Availability” refers to the degree to which the supported end-item is in an operable state when it is or may be needed. Specifically, availability is usually computed as the average time that the end-item is available for a mission (“up time”), divided by the total time (“up time” plus “down time”). The up time would consist of the time that the end-item is operating plus the time that the end-item is standing by in an operable condition (i.e., available for mission). The down time would consist of time devoted to (1) unscheduled maintenance, (2) preventative or scheduled maintenance, (3) waiting for spare parts, and (4) any other administrative or logistics delay. Related indicators of availability could be mission capability rate, fully mission capable rate, or partially mission capable rate. Availability is very much a composite metric, and should only be reported in the SPPR when the contractor had broad, overarching sustainment responsibilities within the scope of the contract.

“Maintenance” refers to the contractor services associated with keeping end-items and secondary items in good operating condition. Performance parameters may be selected to measure the effectiveness and efficiency of the contractor maintenance processes for different types of maintenance (possibly stratified by maintenance location or work center, and by type of repair). An example of a parameter to measure maintenance effectiveness would be the average repair cycle time for an unserviceable asset due in for maintenance. An example of a parameter to measure maintenance efficiency would be the average man-hours per repair. Parameters associated with depot-level maintenance would usually concern end-item overhauls or other major maintenance events.

“Supply” refers to the contractor services that provide sufficient and timely secondary items to the customer. Typical performance parameters would include inventory stockage effectiveness and backorder response time.

“Software” refers to the maintenance of code for software-intensive systems. Performance parameters may be selected to measure the effectiveness, efficiency, and quality of the contractor software maintenance effort. An example of a parameter to measure effectiveness would be the average time to close out a discrepancy report or enhancement change request. An example of a parameter to measure efficiency would be the staff-months per discrepancy report or change request. An example of a parameter to measure quality would be the number of defects per total source lines of code. In many cases, it would be desirable to track the software sizing effort (measured in source lines of code, function points, or similar measure) associated with new, modified, or deleted code.

“Training” refers to the contractor services associated with the training of military operators, maintainers, and other support personnel. Typically, training performance is expressed as the number of graduates by course type over the reporting period, and training workload is expressed as the student load (average class size) over the reporting period.

“Logistics footprint” refers to the quantity or size of transportation and logistics support resources required to deploy and sustain a system (or unit of systems). Measurable elements typically include transportation assets (e.g., C-130 airlift sorties), maintenance and support manpower, spares (reparables and consumables) or other supplies, and support equipment. Sometimes the footprint is measured in weight, manpower spaces, volume, or square footage, depending upon the situation.

#### Specific Instructions for Reporting Performance and Productivity Parameters

Column A. Category. Enter the name for each category of related parameters.

Column B. Parameter. Enter a descriptive name for each parameter being reported. If necessary, provide a complete definition for each parameter in Item 22 (“Remarks”).

The remaining columns (C through H) in the SPPR are used to report the data for each of the performance or other parameters, for each of the three reporting periods. Columns C, E, and G are used to report any goals or objectives for each of the parameters. Columns D, F, and H are used to report the actual or predicted performance results for each of the parameters.

Column C. Goal. Enter the value of the target or objective for each parameter being reported for the current reporting period (from item 16a to item 16b). If there is no goal or target, enter “N/A” for not applicable.

Column D. Actual. Enter the actual performance for each parameter being reported for the current reporting period.

Column E. Goal. Enter the value of the target or objective for each parameter being reported for the cumulative experience to date (from item 11a to item 16b). If there is no goal or target, enter “N/A”.

Column F. Actual. Enter the actual performance for each parameter being reported for the cumulative experience to date.

Column G. Goal. Enter the value of the target or objective for each parameter being reported for the entire period of contract performance (from item 11a to item 11b). If there is no goal or target, enter “N/A”.

Column H. Forecast. Enter the currently predicted performance for each parameter being reported for the entire period of contract performance.





## INSTRUCTIONS FOR COMPLETING SUSTAINMENT COST DATA SUMMARY

The following paragraphs describe how to complete the individual data elements of the Sustainment Cost Data Summary (SCDS). The SCDS is used by contractors to provide a report of actual cost experience over the appropriate reporting periods for major sustainment contracts. The SCDS is submitted by the responsible contractor or subcontractor using the Microsoft Excel template for the summary, following the guidance in these instructions.

### General Instructions

The SCDS will provide cost data broken down following the hierarchy of the approved contract Work Breakdown Structure (WBS). For each WBS element, provide the reported cost (the sum of direct labor, direct material, any other direct, and overhead). In addition, contract-wide costs (e.g., General & Administrative, profit) are to be provided separately. **All reported costs are to be provided in thousands.**

The SCDS provides a cost summary for three reporting periods: the current reporting period, the cumulative experience to date, and the total estimated costs at completion of the entire contract.

### Specific Instructions for Basic Contract Information

Item 1a. Program Name. Enter the complete name for the program that is being supported. For current acquisition programs, enter the name of the program used in the Defense Acquisition Executive Summary (DAES) report, if applicable. For legacy systems, enter the name of the program used in the Defense Acquisition Executive Summary-Sustainment (DAES-S) report, if applicable. If the contract supports multiple programs, provide an explanation in Item 22 (“Remarks”).

Item 1b. Prime Mission Product (PMP). Enter the official military designation or abbreviation for the program being addressed. For example, enter “F-35” for the Joint Strike Fighter.

Item 2. Contract Name. Enter a fully descriptive name of each contract or subcontract effort subject to sustainment cost reporting. Begin with the name of the end item, system, subsystem, or component being supported, followed with a brief title or description of the nature of the contractor support. Examples are:

- C-17 Flexible Sustainment
- BMDS Radar Contractor Logistics Support
- JSTARS Total System Support Responsibility
- Apache Prime Vendor Support
- AE 1170C Engine Power By The Hour
- Stryker Performance Based Logistics

Item 3. Contractor Type. Make a single entry (using an “X”) for one of the following: Prime, Associate, or Subcontractor. Use “Prime” for a contract with the government that provides broad product support functions. Use “Associate” for a contract with the government for support of a single subsystem (e.g., radar) or that provides a specialized support function (e.g., training services). Use “Subcontractor” for a contract between the prime and a subordinate company or other entity.

Item 4. Name/Address. Enter the name, division (if applicable), and address (including ZIP code) of the reporting (prime or associate) contractor or direct-reporting subcontractor.

Item 5. Approved Plan Number. Leave blank and the Defense Cost and Resource Center (DCARC) will make the appropriate entry.

Item 6. Customer (Direct-Reporting Subcontractor Use Only). If you are a direct-reporting contractor, enter the name of the prime contractor for whom the work on the subcontract is being performed. Otherwise, leave blank.

Item 7. Contract Type. Enter the contract type code for the contract for which data are being reported. The codes for the most common contract types that are included in the Federal Acquisition Regulation (FAR) are listed in the table below.

Contract/Order Type Code	
FAR Contract Types	Contract Type Code
Cost Reimbursement Contracts	
Cost Sharing	CS
Cost Plus Award Fee	CPAF
Cost Plus Fixed Fee	CPFF
Cost Plus Incentive Fee	CPIF
Cost Plus Incentive Fee (With Performance Incentives)	CPIF(PI)
Fixed Price Contracts	
Firm Fixed Price	FFP
Fixed Price Incentive, Firm Target	FPIF
Fixed Price Incentive, Successive Targets	FPIST
Fixed Price Incentive, Successive Targets (With Performance Incentive)	FPIST(PI)
Fixed Price Incentive Firm Target (With Performance Incentive)	FPIFT(PI)
Fixed Price Award Fee	FPAF
Fixed Price with Economic Price Adjustment	FP/EPA
Fixed Price with Prospective Price Redetermination	FP/PPR
Fixed Ceiling Price with Retroactive Price Redetermination	FCP/RPR
Firm Fixed Price, Level of Effort Term	FFP/LOET
Letter Contract and Undefined Contractual Action (UCA)	LC
Other Contracts	OC
Contracts with Multiple Contract Types by Contract Line Item Numbers (CLINs)	MC

For Time and Material, Labor-Hour, Letter Contracts, Indefinite Delivery, Basic Ordering Agreements, and flexibly priced contracts, select the primary contract type against which the majority of orders are placed. If the contract type is an “Other

Contract,” enter OC in Item 7 and in Item 22 (“Remarks”), followed by the complete name of the contract type in Item 22. If the contract includes multiple Contract Line Item Numbers (CLINs) of varying contract types, enter “MC” in Item 7 and in Item 22, followed by a description of the contracting arrangement in Item 22.

Item 8. Contract Price. Enter the total contract price value through the most recent contract modification consistent with Item 16b (“Reporting Period End Date”).

- For fixed price contracts without incentives, enter the total negotiated cost plus profit for work to be performed.
- For flexibly priced contracts (e.g., Indefinite Delivery or Basic Ordering Agreements), enter the total estimated value of all potential orders.
- For Letter Contracts and Undefined Contractual Actions, enter the Not-To-Exceed ceiling.
- For all other types of contracts, enter the negotiated target cost plus target profit. Explain any incentive-sharing arrangements (e.g., 70/30 share ratio) in Item 22 (“Remarks”).

Item 9. Contract Ceiling. Enter the amount of the contract ceiling, if applicable. Otherwise, enter “N/A” for “not applicable.”

Item 10. Type Action. For prime or associate contracts with the government, enter the assigned contract number and the number of the latest contract modification. For subcontracts, enter the equivalent identifying information that has been assigned by the prime contractor. If the contract being reported on was in response to a solicitation (as posted on the Federal Business Opportunities Web site), enter the solicitation number. Otherwise, enter “N/A” for “not applicable.”

Item 11. Period of Contract Performance. Enter the start and end dates related to the period of performance for the entire contract. The start date is the date of the initial contract award, and the end date is the estimated date of contract completion (i.e., when the contract is entirely or substantially complete). Enter the appropriate numeric date as month/day/year. The Excel template will display the date as YYYYMMDD. For example, the date 12/31/2004 will be displayed as 20041231.

Item 12. Appropriation. Designate (with an “X”) one or more of the appropriate box(es) to indicate the type of appropriations used by the government to fund the contract. If multiple boxes are checked, provide the percentage breakout in Item 22 (“Remarks”). For subcontracts, leave this item blank. The types of appropriations are:

- Research, Development, Test and Evaluation (RDT&E)
- Procurement
- Operations and Maintenance (O&M)
- Defense Working Capital Fund (DWCF)

Item 13. Report Cycle. Designate (with an “X”) one of the following: “Initial,” “Interim,” or “Final,” as appropriate. The initial SCDS is provided within 120 days from contract award, the interim SCDSs are provided annually thereafter, and the final SCDS is provided upon contract completion. For contracts of duration one year or less, there would be only an initial report and a final report.

Item 14. Submission Number. Enter the contract submission number, as provided in Item 10a of the most recently approved Sustainment Cost and Performance Data Reporting Plan.

Item 15. Resubmission Number. Enter “0” (zero) for the original submission of the report. In the event that the report is revised and resubmitted, enter the resubmission number starting with “1” for the first resubmission, “2” for the second resubmission, and so forth. Explain the reason for the resubmission in Item 22 (“Remarks”).

Item 16. Reporting Period. Enter the start and end dates for the time period that is being reported. Enter the appropriate numeric date as month/day/year. The Excel template will display the date as YYYYMMDD. For example, the date 12/31/2004 will be displayed as 20041231.

Items 17 through 20. Point of Contact (POC) Information. Enter the following information for the person to be contacted for answers to any questions about the report being submitted.

- Item 17. Last Name, First Name, Middle Initial
- Item 18. Department.
- Item 19. Telephone Number (including area code)
- Item 20. E-Mail Address

Item 21. Date Prepared. Enter the appropriate numeric data for the date that the report was prepared. Enter the appropriate numeric date as month/day/year. The Excel template will display the date as YYYYMMDD. For example, the date 12/31/2004 will be displayed as 20041231.

Item 22. Remarks. Provide any relevant additional explanation or other information that would be useful in the interpretation of the data provided in this report. In particular, describe any significant changes to the contract scope or terms and conditions, or any significant changes to the contractor’s accounting system.

#### Specific Instructions for the WBS Reported Data

Column A. WBS Element Code. Enter the Work Breakdown Structure code for each WBS reporting element being reported in Column B. Each code should match the code submitted in the approved contract WBS. The preferred convention is to use a hierarchal numeric structure beginning with 1.0 for the level 1 contract WBS element.

Column B. WBS Reporting Elements. Enter the WBS nomenclature for each reporting element. The nomenclature should agree with the nomenclature used in the approved contract WBS.

Column C. Costs During Reporting Period. For each WBS element being reported, enter the actual costs for the current reporting period (from the start date in Item 16a to the end date in Item 16b).

Column D. Incurred Costs to Date. For each WBS element being reported, enter the actual costs incurred to date (from the award date in Item 11a to the end date in Item 16b).

Column E. Estimated Costs at Completion. For each WBS element being reported, enter the estimated costs at contract completion (from the award date in Item 11a to the completion date in Item 11b).

#### Specific Instructions for Overall Contract Reported Data

Note that the remaining summary entries apply to each of columns C, D, and E. Enter the information for each of the appropriate reporting periods.

Subtotal (direct plus overhead). Enter the total cost provided at the highest level WBS reporting element (e.g., 1.0 Sustainment).

General & Administrative. Enter the total cost (in thousands) for G&A expenses that are allocated to the contract. G&A refers to indirect expenses related to the overall management and administration of the contractor's business unit that cannot be accurately assigned to overhead areas (such as maintenance, material, and so on).

Undistributed Budget. Enter the total amount (in thousands) for that portion of the contract expenses that are applicable to the program effort but that have not yet been allocated to control account budgets.

Management Reserve. Enter the total amount (in thousands) for that portion of the total allocated budget that has been held back as a contingency for management control and risk purposes at the total contract level (rather than designated for the accomplishment of specific tasks).

Cost of Money. Enter the total amount (in thousands) for the facilities capital cost of money associated with the contract. This cost is an imputed cost determined by applying a cost-of-money rate to facilities capital employed in contract performance according to cost accounting standards.

Total Cost. Enter the total contractor costs (in thousands). This is the sum of subtotal (direct plus overhead), G&A, undistributed budget, management reserve, and cost of money.

Profit/Loss or Fee. Enter the total (in thousands) of all profit/loss or fee according to the terms of the contract (e.g., incentive formula). Profit is the excess of revenues over expenses in fixed-price contracts. Loss is the excess of expenses over revenue that contain limited government liability (such as fixed-price contracts or cost-plus contracts with cost ceilings). In special cost-reimbursement pricing arrangements, fee is a form of profit representing an agreed-to amount beyond the initial estimate of costs. Fee may be fixed at the outset of contract performance (such as cost-plus-fixed-fee arrangements), or may vary during performance (such as cost-plus-incentive-fee arrangements).

Total Price. Enter the total price for the contract, which is total cost plus the profit/loss or fee.

## **APPENDIX E:**

### **EXAMPLES OF SCPDR PLAN AND REPORTS**

This appendix provides examples for a hypothetical program using illustrative data for each of the following:

- Sustainment Cost and Performance Data Reporting Plan
- Sustainment Cost Data Breakout
- Sustainment Performance and Productivity Report
- Sustainment Cost Data Summary

SUSTAINMENT COST AND PERFORMANCE DATA REPORTING PLAN									
1. PROGRAM NAME  Joint Tactical Fighter Bomber					2. PRIME MISSION PRODUCT DESIGNATION  F-111				
3. SUBMISSION TYPE <input checked="" type="checkbox"/> DRAFT <input type="checkbox"/> FINAL				4a. SUBMISSION DATE (YYYYMMDD)  20010115			4b. RESUBMISSION NUMBER  0		
5a. POINT OF CONTACT (POC) NAME AND ADDRESS (Include ZIP Code)  Lt. Walter Cooper 123 Claire Chennault Drive Wright-Patterson AFB, 23456				5b. TELEPHONE NUMBER (Include Area Code)  (555) 123-4567		5c. FAX NUMBER (Include Area Code)  (555) 321-7654		5d. E-MAIL ADDRESS  redsoxnut@wpafb.af.mil	
				6. PREPARING ORGANIZATION  F-111 System Program Office ASC YPFMC		7. APPROVED PLAN NUMBER (DCARC USE ONLY)			
8a. CONTRACT NAME	8b. CONTRACTOR TYPE	8c. CONTRACTOR NAME	8d. LOCATION	8e. AWARD DATE (YYYYMMDD)	8f. CONTRACT NUMBER	9. REPORTS REQUIRED (X if applicable)			
						a. CWBS & DICTIONARY	b. SCDS FORM	c. SCDB FORM	d. SPPR FORM
F-111 Sustainment/Product Support Integration F-111 Training Support and Services TF30-P-100 Engine Logistics Support AN/APQ-117 Radar Logistics Support	Prime Associate Associate Subcontractor	General Dynamics Boeing IDS Pratt & Whitney Texas Instruments	Fort Worth, TX Seattle, WA East Hartford, CT Dallas, TX	20010915 20010930 20010930 20011015	xxxxxx-xx-x-xxxx/xxxxxx ttttt-tt-t-ttt/ttttt zzzzzz-zz-z-zzzz/zzzzz rrrrr-rr-r-rrrr/rrrrr	X X X X	 X X X	X	X

PREVIOUS EDITION IS OBSOLETE



10. SCPDR PLANNED SUBMISSION DATES				
a. SUBMISSION NO.	b. FORM(S)	c. EVENT (DATE)	d. AS OF DATE (YYYYMMDD)	e. DUE DATE (YYYYMMDD)
A-1 A-2	Draft SCPDR plan (this document) Final SCPDR plan	Release of draft RFP (Mar 2001) Release of final RFP (Aug 2001)	20010115 20010615	20010115 20010615
B-1 B-2 B-3 B-4 B-5 B-6 B-7 B-8 B-9	<u>General Dynamics</u> CWBS and data dictionary Initial SCDB report Initial SPPR report Interim SCDB report Interim SPPR report Interim SCDB report Interim SPPR report Final SCDB report Final SPPR report	Contract award (Sep 2001) Contract award (Sep 2001) Contract award (Sep 2001) Annually after contract award (Sep 2002) Annually after contract award (Sep 2002) Annually after contract award (Sep 2003) Annually after contract award (Sep 2003) Annually after contract award (Sep 2003) Contract completion (Sep 2004) Contract completion (Sep 2004)	20010915 20010915 20010915 20020915 20020915 20030915 20030915 20030915 20040915 20040915	20011115 20020115 20020115 20030115 20030115 20040115 20040115 20040115 20050115 20050115
C-1 C-2 C-3 C-4 C-5	<u>Boeing IDS</u> CWBS and data dictionary Initial SCDS report Interim SCDS report Interim SCDS report Final SCDS report	Contract award (Sep 2001) Contract award (Sep 2001) Annually after contract award (Sep 2002) Annually after contract award (Sep 2003) Contract completion (Sep 2004)	20010930 20010930 20020930 20030930 20040930	20011130 20020130 20030130 20040130 20050130
D-1 D-2 D-3 D-4 D-5	<u>Pratt &amp; Whitney</u> CWBS and data dictionary Initial SCDS report Interim SCDS report Interim SCDS report Final SCDS report	Contract award (Sep 2001) Contract award (Sep 2001) Annually after contract award (Sep 2002) Annually after contract award (Sep 2003) Contract completion (Sep 2004)	20010930 20010930 20020930 20030930 20040930	20011130 20020130 20030130 20040130 20050130
E-1 E-2 E-3 E-4 E-5	<u>Texas Instruments</u> CWBS and data dictionary Initial SCDS report Interim SCDS report Interim SCDS report Final SCDS report	Subcontract award (Oct 2001) Subcontract award (Oct 2001) Annually after subcontract award (Oct 2002) Annually after subcontract award (Oct 2003) Subcontract completion (Oct 2004)	20011015 20011015 20021015 20031015 20041015	20011215 20020215 20030215 20040215 20050215
11. REMARKS				
<p>The TF-30-P-100 Engine is provided as Government Furnished Equipment (GFE), and is supported as such by Pratt &amp; Whitney</p> <p>Boeing IDS is responsible for aircrew training and aircraft simulator maintenance (General Dynamics is responsible for all F-111 maintenance technician training)</p>				

SECURITY CLASSIFICATION

UNCLASSIFIED

SUSTAINMENT COST DATA BREAKOUT (PART 1)										
1. PROGRAM a. PROGRAM NAME b. PMP DESIGNATION		2. CONTRACT NAME F-111 SUSTAINMENT (PRODUCT SUPPORT INTEGRATION)		3. CONTRACTOR TYPE (X, one) <input checked="" type="checkbox"/> PRIME <input type="checkbox"/> ASSOCIATE <input type="checkbox"/> DIRECT-REPORTING SUBCONTRACTOR		4. NAME/ADDRESS (Include ZIP Code) General Dynamics Military Aircraft Division 4250 Aerospace Blvd Fort Worth, TX 76134		5. APPROVED PLAN NUMBER (DCARC USE ONLY)		
6. CUSTOMER (DIRECT-REPORTING SUBCONTRACTOR USE ONLY)		7. CONTRACT TYPE CPFF	8. CONTRACT PRICE \$750,000.0	9. CONTRACT CEILING N/A	10. TYPE ACTION a. CONTRACT NO.: xxxxxxxx-xx-xx-xxxx/xxxxxx b. LATEST MODIFICATION: 001 c. SOLICITATION NO.: xxxxxxxx		11. PERIOD OF CONTRACT PERFORMANCE a. AWARD DATE (YYYYMMDD): 20010915 b. COMPLETION DATE (YYYYMMDD): 20040915			
12. APPROPRIATION <input type="checkbox"/> ROT&E <input type="checkbox"/> PROCUREMENT <input checked="" type="checkbox"/> O&M		13. REPORT CYCLE <input type="checkbox"/> INITIAL <input checked="" type="checkbox"/> INTERIM <input type="checkbox"/> FINAL		14. SUBMISSION NUMBER B-6		15. RESUBMISSION NUMBER 0		16. REPORTING PERIOD a. START DATE (YYYYMMDD): 20020915 b. END DATE (YYYYMMDD): 20030915		
17. POC NAME (Last, First, Middle Initial) Hardy, Chester P.		18. DEPARTMENT Integrated Logistics Support		19. TELEPHONE NUMBER (Include Area Code) (555) 123-4567		20. EMAIL ADDRESS chardy@gd.com		21. DATE PREPARED (YYYYMMDD) 20040101		
PART 1. COSTS THIS REPORTING PERIOD										
WBS ELEMENT CODE	WBS REPORTING ELEMENTS	DIRECT LABOR		DIRECT MATERIAL				OTHER DIRECT	INDIRECT	TOTAL
		HOURS	DOLLARS	RAW MATERIAL	PURCHASED PARTS	INTERDIVISION WORK TRANSFERS	SUBCONTRACTS PURCHASED EQUIPMENT	SUBCONTRACTS PURCHASED SERVICES	OVERHEAD	
A	B	C	D	E	F	G	H	I	J	K
1.0	Sustainment	2700	\$111,000.0	\$16,000.0	\$19,000.0	\$6,000.0	\$27,000.0	\$6,000.0	\$75,000.0	\$260,000.0
1.1	Operations Support	500	\$20,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$15,000.0	\$35,000.0
1.1.1	Field or Base-Level Services	500	\$20,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$15,000.0	\$35,000.0
1.2	Supply Chain Management	375	\$15,000.0	\$5,000.0	\$5,000.0	\$0.0	\$10,000.0	\$0.0	\$15,000.0	\$50,000.0
1.3	Maintenance	375	\$25,000.0	\$5,000.0	\$5,000.0	\$0.0	\$5,000.0	\$5,000.0	\$5,000.0	\$50,000.0
1.3.1	Intermediate-Level Maintenance	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1.3.2	Depot-Level Maintenance	375	\$25,000.0	\$5,000.0	\$5,000.0	\$0.0	\$5,000.0	\$5,000.0	\$5,000.0	\$50,000.0
1.4	Miscellaneous Support	750	\$30,000.0	\$2,000.0	\$3,000.0	\$0.0	\$3,000.0	\$0.0	\$22,000.0	\$60,000.0
1.4.1	Systems Engineering	125	\$5,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,000.0	\$10,000.0
1.4.2	Program Management	125	\$5,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,000.0	\$10,000.0
1.4.3	Modifications and Retrofit	175	\$7,000.0	\$2,000.0	\$3,000.0	\$0.0	\$3,000.0	\$0.0	\$5,000.0	\$20,000.0
1.4.4	Software Enhancements and Maintenance	250	\$10,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,000.0	\$15,000.0
1.4.5	Technical Order and Manual Updates	75	\$3,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,000.0	\$5,000.0
1.4.6	Other Miscellaneous Support	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1.5	Training Services	300	\$5,000.0	\$0.0	\$2,000.0	\$0.0	\$0.0	\$0.0	\$3,000.0	\$10,000.0
1.5.1	Operator Training	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1.5.2	Maintenance Training	300	\$5,000.0	\$0.0	\$2,000.0	\$0.0	\$0.0	\$0.0	\$3,000.0	\$10,000.0
1.5.3	Other Training	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1.6	Residual Sustainment Investment	400	\$16,000.0	\$4,000.0	\$4,000.0	\$6,000.0	\$9,000.0	\$1,000.0	\$15,000.0	\$55,000.0
1.6.1	Peculiar Support Equipment	125	\$5,000.0	\$2,000.0	\$2,000.0	\$3,000.0	\$3,000.0	\$0.0	\$5,000.0	\$20,000.0
1.6.2	Common Support Equipment	25	\$1,000.0	\$0.0	\$0.0	\$0.0	\$3,000.0	\$0.0	\$1,000.0	\$5,000.0
1.6.3	Training Equipment and Course Materials	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1.6.4	Technical Publications and Data	75	\$3,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,000.0	\$5,000.0
1.6.5	Initial Spares and Repair Parts	125	\$5,000.0	\$2,000.0	\$2,000.0	\$3,000.0	\$3,000.0	\$0.0	\$5,000.0	\$20,000.0
1.6.6	Operational Site Activation	50	\$2,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,000.0	\$2,000.0	\$5,000.0
1.6.7	Other Sustainment Investment	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
SUBTOTAL DIRECT PLUS OVERHEAD										\$260,000.0
GENERAL & ADMINISTRATIVE										\$25,000.0
UNDISTRIBUTED BUDGET										\$0.0
MANAGEMENT RESERVE										\$0.0
COST OF MONEY										\$10,000.0
TOTAL COST										\$295,000.0
PROFIT/LOSS OR FEE										\$15,000.0
TOTAL PRICE										\$310,000.0
22. REMARKS										
Notes: Direct Material used by the Field Service Representatives (WBS 1.1.1) is accounted for in Supply Chain Management (WBS 1.2). The Subcontracts-Purchased Services for Depot-Level Maintenance (WBS 1.3.2) accounts for a teaming arrangement with Warner Robins Air Logistics Center										

PREVIOUS EDITION IS OBSOLETE

SECURITY CLASSIFICATION

UNCLASSIFIED

B-4

SECURITY CLASSIFICATION

UNCLASSIFIED

SUSTAINMENT COST DATA BREAKOUT (PART 2)										
1. PROGRAM a. PROGRAM NAME b. PMP DESIGNATION		2. CONTRACT NAME F-111 SUSTAINMENT (PRODUCT SUPPORT INTEGRATION)		3. CONTRACTOR TYPE (X one) <input checked="" type="checkbox"/> PRIME <input type="checkbox"/> ASSOCIATE <input type="checkbox"/> DIRECT-REPORTING SUBCONTRACTOR		4. NAME/ADDRESS (Include ZIP Code) General Dynamics Military Aircraft Division 4250 Aerospace Blvd Fort Worth, TX 76134		5. APPROVED PLAN NUMBER (DCARC USE ONLY)		
6. CUSTOMER (DIRECT-REPORTING SUBCONTRACTOR USE ONLY)		7. CONTRACT TYPE CPFF		8. CONTRACT PRICE \$750,000.0		9. CONTRACT CEILING N/A		10. TYPE ACTION a. CONTRACT NO.: xxxxxxxx-xx-xx-xxxxx000000 b. LATEST MODIFICATION 001		c. SOLICITATION NO.: xxxxxxxx
11. PERIOD OF CONTRACT PERFORMANCE a. AWARD DATE (YYYYMMDD) b. COMPLETION DATE (YYYYMMDD)		12. APPROPRIATION <input type="checkbox"/> ROT&E <input type="checkbox"/> PROCUREMENT <input checked="" type="checkbox"/> O&M		13. REPORT CYCLE <input type="checkbox"/> INITIAL <input checked="" type="checkbox"/> INTERIM <input type="checkbox"/> FINAL		14. SUBMISSION NUMBER B-6		15. RESUBMISSION NUMBER 0		16. REPORTING PERIOD a. START DATE (YYYYMMDD) 20020915 b. END DATE (YYYYMMDD) 20030915
17. POC NAME (Last, First, Middle Initial) Hardy, Chester, P.		18. DEPARTMENT Integrated Logistics Support		19. TELEPHONE NUMBER (Include Area Code) (555) 123-4567		20. EMAIL ADDRESS chardy@gd.com		21. DATE PREPARED (YYYYMMDD) 20040101		
PART 2. INCURRED COSTS TO DATE										
WBS ELEMENT CODE	WBS REPORTING ELEMENTS	DIRECT LABOR		DIRECT MATERIAL				OTHER DIRECT	INDIRECT	TOTAL
		HOURS	DOLLARS	RAW MATERIAL	PURCHASED PARTS	INTERDIVISION WORK TRANSFERS	SUBCONTRACTS PURCHASED EQUIPMENT	SUBCONTRACTS PURCHASED SERVICES	OVERHEAD	
A	B	C	D	E	F	G	H	I	J	K
1.0	Sustainment	4050	\$166,500.0	\$24,000.0	\$28,500.0	\$9,000.0	\$40,500.0	\$9,000.0	\$112,500.0	\$390,000.0
1.1	Operations Support	750	\$30,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$22,500.0	\$52,500.0
1.1.1	Field or Base-Level Services	750	\$30,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$22,500.0	\$52,500.0
1.2	Supply Chain Management	563	\$22,500.0	\$7,500.0	\$7,500.0	\$0.0	\$15,000.0	\$0.0	\$22,500.0	\$75,000.0
1.3	Maintenance	563	\$37,500.0	\$7,500.0	\$7,500.0	\$0.0	\$7,500.0	\$7,500.0	\$7,500.0	\$75,000.0
1.3.1	Intermediate-Level Maintenance	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1.3.2	Depot-Level Maintenance	563	\$37,500.0	\$7,500.0	\$7,500.0	\$0.0	\$7,500.0	\$7,500.0	\$7,500.0	\$75,000.0
1.4	Miscellaneous Support	1125	\$45,000.0	\$3,000.0	\$4,500.0	\$0.0	\$4,500.0	\$0.0	\$33,000.0	\$90,000.0
1.4.1	Systems Engineering	188	\$7,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$15,000.0
1.4.2	Program Management	188	\$7,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$15,000.0
1.4.3	Modifications and Retrofit	263	\$10,500.0	\$3,000.0	\$4,500.0	\$0.0	\$4,500.0	\$0.0	\$7,500.0	\$30,000.0
1.4.4	Software Enhancements and Maintenance	375	\$15,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$22,500.0
1.4.5	Technical Order and Manual Updates	113	\$4,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,000.0	\$7,500.0
1.4.6	Other Miscellaneous Support	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1.5	Training Services	450	\$7,500.0	\$0.0	\$3,000.0	\$0.0	\$0.0	\$0.0	\$4,500.0	\$15,000.0
1.5.1	Operator Training	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1.5.2	Maintenance Training	450	\$7,500.0	\$0.0	\$3,000.0	\$0.0	\$0.0	\$0.0	\$4,500.0	\$15,000.0
1.5.3	Other Training	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1.6	Residual Sustainment Investment	600	\$24,000.0	\$6,000.0	\$6,000.0	\$9,000.0	\$13,500.0	\$1,500.0	\$22,500.0	\$82,500.0
1.6.1	Peculiar Support Equipment	188	\$7,500.0	\$3,000.0	\$3,000.0	\$4,500.0	\$4,500.0	\$0.0	\$7,500.0	\$30,000.0
1.6.2	Common Support Equipment	38	\$1,500.0	\$0.0	\$0.0	\$0.0	\$4,500.0	\$0.0	\$1,500.0	\$7,500.0
1.6.3	Training Equipment and Course Materials	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1.6.4	Technical Publications and Data	113	\$4,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,000.0	\$7,500.0
1.6.5	Initial Spares and Repair Parts	188	\$7,500.0	\$3,000.0	\$3,000.0	\$4,500.0	\$4,500.0	\$0.0	\$7,500.0	\$30,000.0
1.6.6	Operational Site Activation	75	\$3,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1,500.0	\$3,000.0	\$7,500.0
1.6.7	Other Sustainment Investment	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
SUBTOTAL DIRECT PLUS OVERHEAD										\$390,000.0
GENERAL & ADMINISTRATIVE										\$37,500.0
UNDISTRIBUTED BUDGET										\$0.0
MANAGEMENT RESERVE										\$0.0
COST OF MONEY										\$15,000.0
TOTAL COST										\$442,500.0
PROFIT/LOSS OR FEE										\$22,500.0
TOTAL PRICE										\$465,000.0
22. REMARKS										
Notes: Direct Material used by the Field Service Representatives (WBS 1.1.1) is accounted for in Supply Chain Management (WBS 1.2). The Subcontracts-Purchased Services for Depot-Level Maintenance (WBS 1.3.2) accounts for a teaming arrangement with Warner Robins Air Logistics Center										

PREVIOUS EDITION IS OBSOLETE.

SECURITY CLASSIFICATION

UNCLASSIFIED

E-5

SECURITY CLASSIFICATION

UNCLASSIFIED

SUSTAINMENT COST DATA BREAKOUT (PART 3)										
1. PROGRAM a. PROGRAM NAME b. PMP DESIGNATION		2. CONTRACT NAME F-111 SUSTAINMENT /PRODUCT SUPPORT INTEGRATION		3. CONTRACTOR TYPE (X one) <input checked="" type="checkbox"/> PRIME <input type="checkbox"/> ASSOCIATE <input type="checkbox"/> DIRECT-REPORTING SUBCONTRACTOR		4. NAME/ADDRESS (Include ZIP Code) General Dynamics Military Aircraft Division 4250 Aerospace Blvd Fort Worth, TX 76134		5. APPROVED PLAN NUMBER (DCARC USE ONLY)		
6. CUSTOMER (DIRECT-REPORTING SUBCONTRACTOR USE ONLY)		7. CONTRACT TYPE CPFF		8. CONTRACT PRICE \$750,000.0		9. CONTRACT CEILING N/A		10. TYPE ACTION a. CONTRACT NO.: xxxxxxxx-xx-xx-xxxx/xxxxxx b. LATEST MODIFICATION: 001		c. SOLICITATION NO.: xxxxxxxx
11. PERIOD OF CONTRACT PERFORMANCE a. AWARD DATE (YYYYMMDD): 20010915 b. COMPLETION DATE (YYYYMMDD): 20040915		12. APPROPRIATION <input type="checkbox"/> ROT&E <input type="checkbox"/> PROCUREMENT <input checked="" type="checkbox"/> O&M		13. REPORT CYCLE <input type="checkbox"/> INITIAL <input checked="" type="checkbox"/> INTERIM <input type="checkbox"/> FINAL		14. SUBMISSION NUMBER B-6		15. RESUBMISSION NUMBER 0		16. REPORTING PERIOD a. START DATE (YYYYMMDD) 20020915 b. END DATE (YYYYMMDD) 20030915
17. POC NAME (Last, First, Middle Initial) Hardy, Chester, P.		18. DEPARTMENT Integrated Logistics Support		19. TELEPHONE NUMBER (Include Area Code) (555) 123-4567		20. EMAIL ADDRESS chardy@gd.com		21. DATE PREPARED (YYYYMMDD) 20040101		
PART 3. ESTIMATED COSTS AT COMPLETION										
WBS ELEMENT CODE	WBS REPORTING ELEMENTS	DIRECT LABOR		DIRECT MATERIAL				OTHER DIRECT	INDIRECT	TOTAL
		HOURS	DOLLARS	RAW MATERIAL	PURCHASED PARTS	INTERDIVISION WORK TRANSFERS	SUBCONTRACTS PURCHASED EQUIPMENT	SUBCONTRACTS PURCHASED SERVICES	OVERHEAD	
A	B	C	D	E	F	G	H	I	J	K
1.0	Sustainment	6750	\$277,500.0	\$40,000.0	\$47,500.0	\$15,000.0	\$67,500.0	\$15,000.0	\$187,500.0	\$650,000.0
1.1	Operations Support	1250	\$50,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$37,500.0	\$87,500.0
1.1.1	Field or Base-Level Services	1250	\$50,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$37,500.0	\$87,500.0
1.2	Supply Chain Management	938	\$37,500.0	\$12,500.0	\$12,500.0	\$0.0	\$25,000.0	\$0.0	\$37,500.0	\$125,000.0
1.3	Maintenance	938	\$62,500.0	\$12,500.0	\$12,500.0	\$0.0	\$12,500.0	\$12,500.0	\$12,500.0	\$125,000.0
1.3.1	Intermediate-Level Maintenance	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1.3.2	Depot-Level Maintenance	938	\$62,500.0	\$12,500.0	\$12,500.0	\$0.0	\$12,500.0	\$12,500.0	\$12,500.0	\$125,000.0
1.4	Miscellaneous Support	1875	\$75,000.0	\$5,000.0	\$7,500.0	\$0.0	\$7,500.0	\$0.0	\$55,000.0	\$150,000.0
1.4.1	Systems Engineering	313	\$12,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$12,500.0	\$25,000.0
1.4.2	Program Management	313	\$12,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$12,500.0	\$25,000.0
1.4.3	Modifications and Retrofit	438	\$17,500.0	\$5,000.0	\$7,500.0	\$0.0	\$7,500.0	\$0.0	\$12,500.0	\$50,000.0
1.4.4	Software Enhancements and Maintenance	625	\$25,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$12,500.0	\$37,500.0
1.4.5	Technical Order and Manual Updates	188	\$7,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,000.0	\$12,500.0
1.4.6	Other Miscellaneous Support	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1.5	Training Services	750	\$12,500.0	\$0.0	\$5,000.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$25,000.0
1.5.1	Operator Training	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1.5.2	Maintenance Training	750	\$12,500.0	\$0.0	\$5,000.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$25,000.0
1.5.3	Other Training	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1.6	Residual Sustainment Investment	1000	\$40,000.0	\$10,000.0	\$10,000.0	\$15,000.0	\$22,500.0	\$2,500.0	\$37,500.0	\$137,500.0
1.6.1	Peculiar Support Equipment	313	\$12,500.0	\$5,000.0	\$5,000.0	\$7,500.0	\$7,500.0	\$0.0	\$12,500.0	\$50,000.0
1.6.2	Common Support Equipment	63	\$2,500.0	\$0.0	\$0.0	\$0.0	\$7,500.0	\$0.0	\$2,500.0	\$12,500.0
1.6.3	Training Equipment and Course Materials	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1.6.4	Technical Publications and Data	188	\$7,500.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$5,000.0	\$12,500.0
1.6.5	Initial Spares and Repair Parts	313	\$12,500.0	\$5,000.0	\$5,000.0	\$7,500.0	\$7,500.0	\$0.0	\$12,500.0	\$50,000.0
1.6.6	Operational Site Activation	125	\$5,000.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,500.0	\$5,000.0	\$12,500.0
1.6.7	Other Sustainment Investment	0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
SUBTOTAL DIRECT PLUS OVERHEAD										\$650,000.0
GENERAL & ADMINISTRATIVE										\$62,500.0
UNDISTRIBUTED BUDGET										\$0.0
MANAGEMENT RESERVE										\$0.0
COST OF MONEY										\$25,000.0
TOTAL COST										\$737,500.0
PROFIT/LOSS OR FEE										\$37,500.0
TOTAL PRICE										\$775,000.0
22. REMARKS										
Notes: Direct Material used by the Field Service Representatives (WBS 1.1.1) is accounted for in Supply Chain Management (WBS 1.2)  The Subcontracts-Purchased Services for Depot-Level Maintenance (WBS 1.3.2) accounts for a teaming arrangement with Warner Robins Air Logistics Center										

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SUSTAINMENT PERFORMANCE AND PRODUCTIVITY REPORT									
1. PROGRAM a. PROGRAM NAME Joint Tactical Fighter Bomber b. PMP DESIGNATION F-111		2. CONTRACT NAME F-111 SUSTAINMENT PRODUCT SUPPORT INTEGRATION		3. CONTRACTOR TYPE (X one) <input checked="" type="checkbox"/> PRIME <input type="checkbox"/> ASSOCIATE <input type="checkbox"/> DIRECT-REPORTING SUBCONTRACTOR		4. NAME/ADDRESS (Include ZIP Code) General Dynamics Military Aircraft Division 4250 Aerospace Blvd Forth Worth, TX 12345		5. APPROVED PLAN NUMBER (DCARC USE ONLY)	
6. CUSTOMER (DIRECT-REPORTING SUBCONTRACTOR USE ONLY)		7. CONTRACT TYPE CPFF	8. CONTRACT PRICE \$750,000.0	9. CONTRACT CEILING N/A	10. TYPE ACTION a. CONTRACT NO.: xxxxxxxx-xx-xx-xxxx-xxxxxx b. LATEST MODIFICATION: 001 c. SOLICITATION NO.: xxxxxxxx				
11. PERIOD OF CONTRACT PERFORMANCE a. AWARD DATE (YYYYMMDD) 20010915 b. COMPLETION DATE (YYYYMMDD) 20040915		12. APPROPRIATION <input type="checkbox"/> ROUTE <input type="checkbox"/> PROCUREMENT <input checked="" type="checkbox"/> O&M <input type="checkbox"/> DWCF		13. REPORT CYCLE <input type="checkbox"/> INITIAL <input type="checkbox"/> INTERIM <input checked="" type="checkbox"/> FINAL	14. SUBMISSION NUMBER B-7		15. RESUBMISSION NUMBER	16. REPORTING PERIOD a. START DATE (YYYYMMDD) 20020915 b. END DATE (YYYYMMDD) 20030915	
17. POC NAME (Last, First, Middle Initial) Hardy, Chester P.		18. DEPARTMENT Integrated Logistics Support		19. TELEPHONE NUMBER (Include Area Code) (555) 123-4567		20. EMAIL ADDRESS chardy@gdt.com		21. DATE PREPARED (YYYYMMDD) 20040101	
PERFORMANCE AND PRODUCTIVITY PARAMETERS									
CATEGORY A		PARAMETER B		EXPERIENCE DURING REPORTING PERIOD GOAL C ACTUAL D		CUMULATIVE EXPERIENCE TO DATE GOAL E ACTUAL F		PROJECTION AT COMPLETION GOAL G FORECAST H	
Operations	No. of aircraft supported	N/A	35	N/A	35	N/A	85		
	No. of flying hours supported	N/A	7,000	N/A	9,000	N/A	26,000		
Availability	No. of bases supported	N/A	3	N/A	3	N/A	6		
	Customer satisfaction with Field Service Reps	> 85%	83.0%	> 83.7%	81.0%	> 87.5%	90.0%		
Supply	Aircraft Mission Capability (MC) rate	> 70%	73.0%	> 68%	71.0%	> 75%	80.0%		
Maintenance	Stockage Effectiveness Rate - repairable items	> 85%	87.0%	> 85%	87.0%	> 85%	87.0%		
	Stockage Effectiveness Rate - consumable items	> 85%	83.0%	> 85%	82.0%	> 85%	85.0%		
	Average backorder response time (hours) - repairable items	72	60	72	65	72	60		
	Average backorder response time (hours) - consumable items	72	75	72	77	72	72		
	Aircraft Not Mission Capable Supply (NMCS) rate	< 10%	8.5%	< 10%	9.5%	< 10%	7.5%		
Software Maintenance	Repairable items - average repair cycle time (days)	< 8	6.5	N/A	7	N/A	17		
	Aircraft depot overhaul events	N/A	5	N/A	7	N/A	17		
	Aircraft depot overhaul - average cycle time (days)	< 45	35	N/A	7	N/A	17		
	Carryover (executable) source lines of code	N/A	100,000	N/A	97,000	N/A	97,000		
Training	Source lines of code (new)	N/A	4,000	N/A	7,000	N/A	10,000		
	Source lines of code (modified)	N/A	6,000	N/A	9,000	N/A	12,000		
	Average discrepancy report response time (days)	< 30	32	< 30	35	< 30	30		
Training	Maintenance technician training load (student-months/month)	N/A	30	N/A	20	N/A	40		
22. REMARKS									
Parameter definitions:  Customer satisfaction is based on survey results showing percentage of respondents rating the Field Service Representative support as satisfactory, superior, or outstanding  Aircraft Mission Capability (MC) rate indicates the percentage of possessed hours for aircraft that can fly at least some assigned missions  Stockage Effectiveness Rate is the percentage of customer requests for material that were filled by items in the base-level inventory  Average backorder response time is the average order and ship time for customer requests not satisfied by items in the base-level inventory  Aircraft Not Mission Capable Supply (NMCS) rate indicates the percentage of possessed hours for aircraft that cannot fly any assigned missions due to lack of parts  Repairable items - average repair cycle time is the average number of days an unserviceable asset is in the contractor repair cycle (repair cycle consists of: shipping from the field unit, warehousing, repair, and return to serviceable status at the contractor source of repair)  Aircraft depot overhaul - average cycle time is the average number of flow days associated with aircraft overhauls (measured as time for overhaul consisting of: aircraft arrival, depaint, inspection, structural repair, concurrent modifications, reassembly, paint, final inspection, and flight test) (excludes work conducted at field-level to prepare the aircraft for depot work)  Average software discrepancy report (DR) response time measures the average calendar time from DR receipt until the resulting software change is released to the customer for operational use									

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SUSTAINMENT COST DATA SUMMARY									
1. PROGRAM a. PROGRAM NAME b. PMP DESIGNATION		2. CONTRACT NAME		3. CONTRACTOR TYPE (X one) <input type="checkbox"/> PRIME <input checked="" type="checkbox"/> ASSOCIATE <input type="checkbox"/> DIRECT-REPORTING SUBCONTRACTOR		4. NAME/ADDRESS (Include ZIP Code)		5. APPROVED PLAN NUMBER (DCARC USE ONLY)	
Joint Tactical Fighter Bomber F-111		TF30-P-100 Engine Logistics Support				Pratt & Whitney P&W Military Engines 2727 Calle Aventura East Hartford, CT 04321			
6. CUSTOMER (DIRECT-REPORTING SUBCONTRACTOR USE ONLY)		7. CONTRACT TYPE		8. CONTRACT PRICE		9. CONTRACT CEILING		10. TYPE ACTION a. CONTRACT NO. b. LATEST MODIFICATION	
		FP/EPA		\$125,000.0		N/A		c. SOLICITATION NO.: 001	
11. PERIOD OF CONTRACT PERFORMANCE a. AWARD DATE (YYYYMMDD) b. COMPLETION DATE (YYYYMMDD)		12. APPROPRIATION <input checked="" type="checkbox"/> RDT&E <input checked="" type="checkbox"/> PROCUREMENT <input type="checkbox"/> OSM		13. REPORT CYCLE <input type="checkbox"/> INITIAL <input checked="" type="checkbox"/> INTERIM <input type="checkbox"/> FINAL		14. SUBMISSION NUMBER		15. RESUBMISSION NUMBER	
20010930 20040930		<input type="checkbox"/> DWCF		D-4		D-4		0	
17. POC NAME (Last, First, Middle Initial)		18. DEPARTMENT		19. TELEPHONE NUMBER (Include Area Code)		20. EMAIL ADDRESS		21. DATE PREPARED (YYYYMMDD)	
Kurtz, Samuel H.		Logistics Support		(555) 567-1234		shkurtz@pw.com		20031115	
WBS ELEMENT CODE		WBS REPORTING ELEMENTS		COSTS DURING REPORTING PERIOD		INCURRED COSTS TO DATE		ESTIMATED COSTS AT COMPLETION	
A	B	C		D		E			
1.0	Sustainment	\$52,000.0		\$78,000.0		\$130,000.0			
1.1	Operations Support	\$0.0		\$0.0		\$0.0			
1.2	Supply Chain Management	\$12,000.0		\$18,000.0		\$30,000.0			
1.2.1	SCM - Engine Module Repair	\$8,000.0		\$12,000.0		\$20,000.0			
1.2.2	SCM - Engine Consumable Items	\$4,000.0		\$6,000.0		\$10,000.0			
1.3	Maintenance	\$10,000.0		\$15,000.0		\$25,000.0			
1.3.2	Depot-Level Maintenance	\$10,000.0		\$15,000.0		\$25,000.0			
1.3.2.1	DLM - Engine Overhauls	\$10,000.0		\$15,000.0		\$25,000.0			
1.4	Miscellaneous Support	\$16,000.0		\$24,000.0		\$40,000.0			
1.4.3	Modifications and Retrofit	\$16,000.0		\$24,000.0		\$40,000.0			
1.4.3.1	Mds - Engine TCTO Kits (Base Level)	\$2,000.0		\$3,000.0		\$5,000.0			
1.4.3.2	Mds - Engine TCTO Kits (Depot Level)	\$4,000.0		\$6,000.0		\$10,000.0			
1.4.3.3	Engine Component Improvement Program	\$10,000.0		\$15,000.0		\$25,000.0			
1.6	Residual Sustainment Investment	\$14,000.0		\$21,000.0		\$35,000.0			
1.6.1	Peculiar Support Equipment	\$4,000.0		\$6,000.0		\$10,000.0			
1.6.1.1	PCE - Engine Module Repair	\$4,000.0		\$6,000.0		\$10,000.0			
1.6.5	Initial Spares and Repair Parts	\$10,000.0		\$15,000.0		\$25,000.0			
1.6.5.1	Initial Spares - Whole Engines	\$4,000.0		\$6,000.0		\$10,000.0			
1.6.5.2	Initial Spares - Parts	\$6,000.0		\$9,000.0		\$15,000.0			
SUBTOTAL DIRECT PLUS OVERHEAD		\$52,000.0		\$78,000.0		\$130,000.0			
GENERAL & ADMINISTRATIVE		\$5,000.0		\$7,500.0		\$12,500.0			
UNDISTRIBUTED BUDGET									
MANAGEMENT RESERVE									
COST OF MONEY		\$1,000.0		\$1,500.0		\$2,500.0			
TOTAL COST		\$58,000.0		\$87,000.0		\$145,000.0			
PROFIT/LOSS OR FEE		\$5,000.0		\$7,500.0		\$12,500.0			
TOTAL PRICE		\$63,000.0		\$94,500.0		\$157,500.0			
22. REMARKS									
12. Appropriation funding WBS 1.4.3.3 (Engine Component Improvement Program) is funded by RDT&E appropriations WBS 1.6.1 (Peculiar Support Equipment) and WBS 1.6.5 (Initial Spares and Repair Parts) are funded by Procurement appropriations All other WBS elements are funded by OSM appropriations									

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## **REFERENCES**

- Defense Acquisition Guidebook [Online], (2004). Available: <http://akss.dau.mil/dag> [February 6, 2008].
- Defense Contract Management Agency, "DoD Earned Value Implementation Guide," October 2006.
- DoD 5000.04-M-1, "Cost and Software Data Reporting Manual," April 2007.
- DoD Directive 5000.1, "The Defense Acquisition System," May 2003.
- DoD Instruction 5000.2, "Operation of the Defense Acquisition System," May 2003.
- DoD MIL-HDBK-881A, "Work Breakdown Structure for Defense Materiel Items," July 2005.
- Government Accountability Office, "Defense Management: DoD Needs to Demonstrate That Performance-Based Logistics Contracts Are Achieving Expected Benefits," GAO-05-966, September 2005.
- Office of the Secretary of Defense, Cost Analysis Improvement Group, "Operating and Support Cost-Estimating Guide," October 2007.





## **ABBREVIATIONS**

CAIG	Cost Analysis Improvement Group
CCDR	Contractor Cost Data Reporting
CDRL	Contract Data Requirements List
CLS	Contractor Logistics Support
CPR	Contract Performance Report
CSDR	Cost and Software Data Reporting
DACIMS	Defense Automated Cost Information Management System
DCAA	Defense Contract Audit Agency
DCARC	Defense Cost and Resource Center
DCMA	Defense Contract Management Agency
DID	Data Item Description
DoD	Department of Defense
EVM	Earned Value Management
EVMS	Earned Value Management System
FIRST	F/A-18 E/F Integrated Readiness Support Training
FTE	Full-Time Equivalent
GAO	Government Accountability Office
GFE	Government Furnished Equipment
ICS	Interim Contractor Support
IDA	Institute for Defense Analyses
IMS	Integrated Master Schedule
IPT	Integrated Product Team
JSTARS	Joint Surveillance and Target Attack Radar System
MICAP	Mission Incapable Critical Action Procurement
MICAP	Mission Incapable Critical Action
NAVAIR	Naval Air Systems Command
NAVICP	Naval Inventory Control Point

O&S	Operating and Support
OSD	Office of the Secretary of Defense
PBL	Performance Based Logistics
PDM	Programmed Depot Maintenance
PM	Program Manager
POM	Program Objective Memorandum
PSI	Product Support Integrator
RFP	Request for Proposal
RSP	Readiness Spares Package
SCDB	Sustainment Cost Data Breakout
SCDS	Sustainment Cost Data Summary
SCPDR	Sustainment Cost and Performance Data Reporting
SPPR	Sustainment Performance and Productivity Report
SRDR	Software Resources Data Reporting
TLSCM	Total Life-Cycle Systems Management
TSSR	Total System Support Responsibility
UAV	Unmanned Aerial Vehicle
VAMOSC	Visibility and Management of Operating and Support Costs
WBS	Work Breakdown Structure

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
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4. TITLE AND SUBTITLE				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S), Last Names First				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
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9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSORING/MONITORING AGENCY REPORT NUMBER	
12. DISTRIBUTION AVAILABILITY STATEMENT					
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14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON (Last Name First)
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. TELEPHONE NUMBER (Include area code)





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